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They contain: (1) Current information of the prevalence and geographic distribution of preventable diseases in the United States in so far as data are obtainable, and of cholera, plague, smallpox, typhus fever, yellow fever, and other communicable diseases throughout the world. (2) Articles relating to the cause, prevention, or control of disease. (3) Other pertinent information regarding sanitation and the conservation of public health.

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PREVALENCE OF DISEASE

PUBLIC HEALTH REPORTS

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SOME NOTES ON THE LIMITATIONS OF SCREENS IN THE PREVENTION OF MALARIA

By M. A. BARBER, *Special Expert*, and C. H. KING, *Technical Assistant, United States Public Health Service*

In a portion of Dona Ana County, N. Mex., the malaria rate has rapidly increased during the past three years. The proportion of screened dwellings there is high; so it seemed worth while to make a study of the amount and character of the screening. During the summer of 1928, we visited representative portions of the county, taking pains to include in our survey all types of the rural neighborhoods and smaller towns. Las Cruces, a large town of about 8,000 inhabitants, has little or no indigenous malaria, and was omitted from the survey. Had this town been included, the percentage of well-screened houses obtained for the county would have been somewhat higher. The results of the screen survey are shown in Table 1.

TABLE 1.—*Amount and character of the screens in a sample group of houses in Dona Ana County, N. Mex.*

Type of screening	Number of houses	Per cent of total number
I. Veranda, doors and windows screened	97	13.0
II. Veranda not screened:		
1. Completely screened, doors and windows to the top	430	57.6
2. Completely screened except upper half windows not screened	121	16.2
3. Lacking screened doors, windows wholly or partially screened	49	6.5
4. Only one room screened, presumably a sleeping room	5	.7
III. Wholly unscreened	45	6.0
Total	[1] 747	100.0

[1] It is estimated on the basis of the tax rolls that there are about 4,000 houses in the county.

We note in Table 1 that the proportion of completely screened houses is high, that of wholly unscreened houses low. If we add to the wholly unscreened group, Nos. 3 and 4 of Group II, all with less complete screening, we have only 13.2 per cent of the total.

The highest proportion of wholly unscreened houses was found in certain Spanish-American villages, 10.8 per cent unscreened among 261 houses surveyed.

Approximately 82 per cent of the houses are constructed of mud bricks strengthened with straw and sun-dried (adobes), a material which affords strong, compact walls having but few of the chinks or other openings common in the poorer class of frame houses in the Southern States. (Fig. 1.) Over 5 per cent consisted of the "jacal" type of dwelling, in which the walls and roof are made of mud reinforced by sticks and brush, a construction hardly more elaborate than a bird's nest. (Fig. 2.) A large proportion of the "jacal" houses were well screened.

There had been no county-wide campaign in this region, but efforts have been made during the past five years to encourage screening for health purposes. People usually put in screens because they felt the need of them for comfort, and were therefore the more likely to use them at least during part of the day. On the whole, the percentage of well-screened houses was higher than one could hope to attain by any but a very thorough county-wide campaign in one of the Southern States.

There were, of course, many defective screens, but not materially more than one finds in any rural neighborhood. That the screens were effective in keeping out a large proportion of *Anopheles* is indicated by the following survey, which we made in houses for the most part of the poorer class:

Screened houses.—Thirty-seven examined, 4 *Anopheles* found, averaging about 1.1 per 10 houses.

Unscreened houses.—Seventeen examined, 35 *Anopheles* found, averaging about 20 per 10 houses.

That is, nearly eighteen times as many *Anopheles* were found in unscreened as in screened houses. Nearly all the *Anopheles* found in houses were *A. maculipennis.*

The amount of malaria in Dona Ana County during the past four years is shown by months in Table 2, according to data kindly furnished us by Dr. C. W. Gerber, county health officer. The cases are mostly those reported by physicians; some were obtained in school and neighborhood surveys. In only a part of the cases were blood specimens submitted for confirmation of the diagnosis. Those which we personally found positive are shown in parentheses at the bottom of the table. Many other blood specimens were confirmed by Doctor Gerber. The number which we found blood positive taken alone indicates that there was considerable malaria in the county, and, what is more significant in this study, the rate was increasing. Some of the cases reported by the physicians may not have been malaria, of course; but, on the other hand, our surveys showed that many cases were not being reported at all.

The population of Dona Ana County (16,200 in 1920) is estimated to be about 22,500 at present. However, the southern part of the

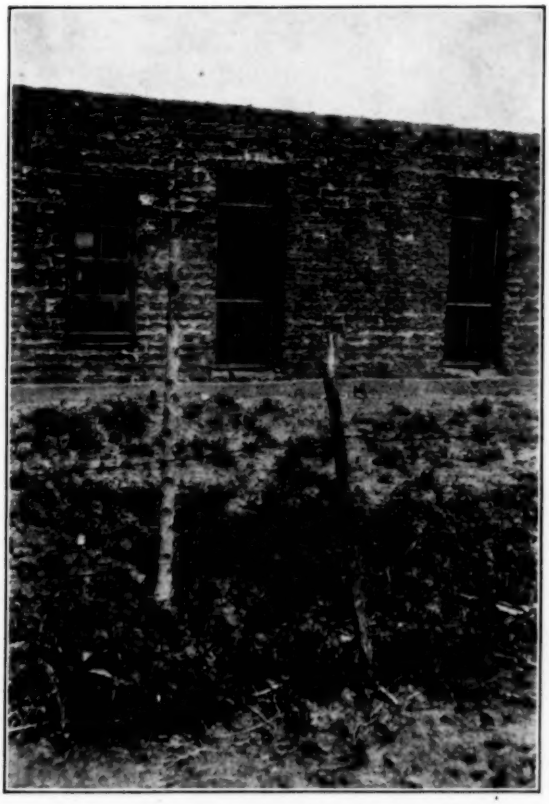

FIG. 1.—ADOBE HOUSE SHOWING SCREENING

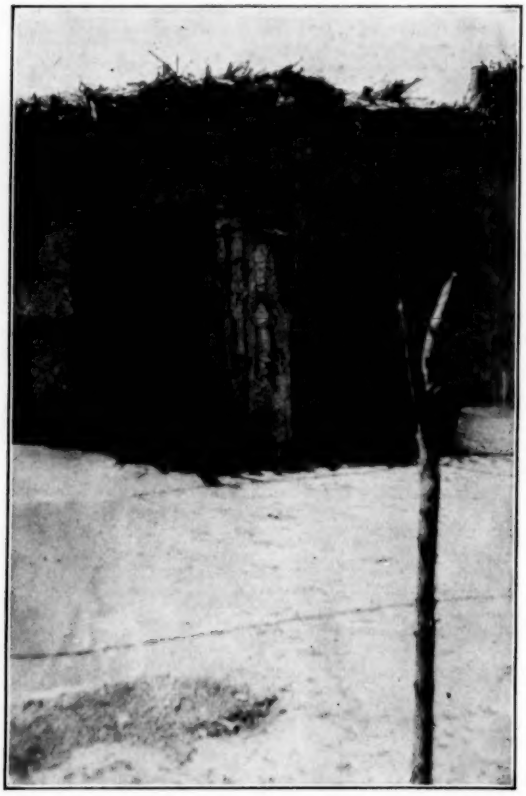

FIG. 2.—"JACAL" HOUSE WITH SCREEN DOOR

county and the town of Las Cruces are practically free from malaria; so the infected region would include no more than 10,000, less than half of the total population of the county.

The type of malaria found was for the most part benign tertian, and undoubtedly a large proportion of the cases appearing in the later years were relapses. Many cases had histories of former attacks, and it will be noted that an increasing proportion of cases appears in the spring months.

TABLE 2.—*Malaria in Dona Ana County, N. Mex.—Cases as reported to the county health officer by months and years*

	1924	1925	1926	1927	1928		1924	1925	1926	1927	1928
January	0	0	0	1	4	October	0	4	5	47	80
February	0	0	0	0	1	November	0	0	1	5	------
March	0	0	0	1	4	December	0	1	0	4	------
April	0	0	0	1	13						
May	0	2	0	0	18	Total	0	11	24	351	408
June	0	1	1	7	33	Confirmed by blood examination	------	------	(18)	(83)	(133)
July	0	0	0	27	36						
August	0	0	2	101	112						
September	0	3	15	157	107						

We investigated the character of the screens in a sample group of 39 houses in which cases of malaria appeared during 1928. A part of these cases were contracted during the current year, for they include several very young children and other persons with no previous history of malaria.

The results of this survey appear in Table 3.

TABLE 3.—*Houses in which malaria cases occurred during 1928 and character of screens*

Type of screening	Number of houses	Per cent incidence
Complete, with veranda	1	2.5
Complete, without veranda	21	53.8
Partially screened	10	25.6
Wholly unscreened	7	17.9
	39	99.8

In a comparison of the percentage incidence of different types of screening in malaria-infected houses (Table 3) with that appearing in houses in general (Table 1), it appears that houses completely screened but lacking screened veranda have about the same percentage in each group; while those wholly unscreened show a much larger percentage incidence in the malaria-infected group.

It will be remembered, of course, that poorer types of houses are inhabited by a poorer class of people, those more likely to have malaria on more counts than the single one of exposure to mosquitoes. The houses with screened verandas seemed less likely to become infected. However, the series of infected houses is too small to show definitely more than the fact that many cases occurred in well screened houses.

The houses included in Table 3 comprise only dwellings in which at least one case of malaria was found. In 60 per cent of these 39,

at least one case was confirmed by blood examination. About 76 cases were reported from the 39 houses.

There seemed to be no correlation of intensity of malaria and poorer screening in different regions of the county. From a certain rural section, Hill, a considerable number of cases were reported during the summer. The parasite rate of school children there, 18 per cent of 56 children examined, was relatively high. The region is comparatively new and the houses are small, but nearly 94 per cent of them are screened.

We obtained further data on screening in an Indian Pueblo, San Juan, located in northern New Mexico. Here practically every house was screened in 1927, and we were informed that the village had been well screened for three years prior to that date. The houses in this Indian village are nearly all of adobe and easily made mosquito-proof. Many of the screen doors were sagging, leaving a considerable opening at the top. It would seem, however, that the screens were fairly effective in excluding *Anopheles*, as shown by the following observations: In July, 1927, we examined 21 screened houses in the village and found but 7 *Anopheles*, all *A. maculipennis*. We had no unscreened controls in San Juan, but in the course of five visits to one unscreened house in a neighboring Indian village, Pueblito, we found 56, 19, 11, 31, and 32 *Anopheles*, respectively, nearly all *A. maculipennis* and two of them with malaria oöcysts in the mid-gut. The house was then screened, and thereafter we found at two visits only 2 and 1 *Anopheles*, respectively, although the door sagged so much that a wide opening was left at the top.

The malaria parasite rate of San Juan Pueblo, based on the examination of at least 60 children per year, was as follows: 1926, 28 per cent; 1927, 13 per cent; 1928, 11 per cent. In every case the examination was made in September.

The Indians of this village have been receiving quinine treatment through the efforts of the Agency physician and a visiting nurse, and during 1928 the *Anopheles* breeding places within a radius of 2 kilometers of the village were systematically treated with Paris green as a larvicide.

A large proportion of the cases found positive in the autumn of 1928 were also positive in the spring.

Our survey showed, in the case of San Juan Pueblo, that malaria (here exclusively of the benign tertian type) persisted long after the village was completely screened, and that the screens, although defective in many houses, were fairly efficient in keeping out mosquitoes. It also appeared that the people of San Juan were in the habit of remaining out of doors at dusk.

Discussion.—It seems clear that in Dona Ana County malaria increased in spite of a high degree of screening, and that in San Juan

it persisted, although in diminishing rate, long after the village was well screened. In both localities the transmission of malaria occurred probably because the people did not keep behind their screens at nightfall. In the rural regions of Dona Ana County, people are accustomed to sit, or even sleep, out of doors at night. This is especially true of seasons like the early summer of 1928, when it was so dry that there was little mosquito breeding outside of the drainage ditches, where *Anopheles* usually breed profusely. There was then little complaint of mosquitoes, but we had no trouble in finding many *Anopheles* under bridges and about barns and other buildings.

Many years ago Byrd accounted for the lack of malaria in some parts of Florida by the theory that salt marsh mosquitoes were so plentiful that people had to protect themselves at night. The theory is a plausible one—the evening air fortified by such a pungent ingredient as *Aëdes sollicitans* may well become unbearable. Screening is very popular in the prairie rice regions of the United States, where many kinds of nuisance mosquitoes abound. We believe that screens have played an important part in keeping down the malaria rate in such regions; but they were probably not the only factor concerned, for malaria has diminished in rice-growing regions of Europe also, where screens were not employed.

In the American Tropics screens have played a large part in protecting such people as were willing to avail themselves of them. In 1928 a school in Guabito, Panama, was surveyed, in which 16 white children gave no positives on blood examination, although neighboring native schools gave as high as 25 per cent or over. In the Tropics, it is true, broad verandas are usually screened in, and people are less tempted to spend much of their evening out of doors. The screening of verandas may aid in reducing malaria in temperate regions. The cost of such screening is greater than that of screening doors and windows merely; but the total expense is usually less than that of the upkeep of an automobile during a couple of months, and nearly every farmer in the United States can afford that.

It is certainly advisable to promote education in the proper use of screens, but it is problematical how far people can be made to give up a habit so attractive as that of sitting out of doors on a warm evening. One might at least hope to encourage people to keep the children in at night and to keep patients ill with malaria away from mosquitoes.

We would encourage every effort to promote screening, whether by county-wide compaigns, by education, or by whatever means seems most purposeful. This protection is only a part of decent living in a region infested by flies or mosquitoes. Where screens do not wholly protect against the transmission of malaria, they may make

a neighborhood slow-burning, epidemiologically speaking, and may make a careful people almost malaria-proof. But one should keep in mind that screening is no panacea against malaria, and that results may come but slowly in regions where merely nuisance mosquitoes are few and where people do not hold an attack of malaria in any particular dread.

THE NATIONAL LEPER HOME (UNITED STATES MARINE HOSPITAL), CARVILLE, LA.

Review of the More Important Activities During the Fiscal Year Ended June 30, 1928

By O. E. Denney, *Surgeon (R), United States Public Health Service, Medical Officer in Charge*

The optimism previously noted among the patients continued during the year. The decrease in suffering from acute and chronic manifestations of leprosy, the lowering of the mortality, and the increasing number of patients paroled as being no longer a menace to public health, have no doubt been factors in bringing about the present excellent morale.

During the year, 73 new patients were admitted, 20 absconded, and 20 absconders were readmitted; 6 were deported as not being legally entitled to hospitalization at the expense of the United States. Nineteen deaths occurred, a mortality rate of 68 per 1,000.

Causes of death

Angina pectoris	1	Pneumonia, lobar	3
Arteriosclerosis, local coronary	1	Tuberculosis, miliary	1
Cardiac dyspnea	1	Tuberculosis, pulmonary	3
Dilatation, acute, of stomach	1	Wound, gunshot, of brain	1
Leprous cachexia	2		
Nephritis, parenchymatous, chronic	2	Total	19
Pneumonia, hypostatic	3		

Nativity of patients in hospital

Alabama	1	Hawaii Territory	8	Pennsylvania	2
Arkansas	1	Ireland	1	Philippine Islands	5
Bahama Islands	1	India	2	Porto Rico	5
Bermuda Islands	2	Italy	12	Portugal	3
British Guiana	3	Jamaica	1	Russia	4
British West Indies	5	Louisiana	104	Society Islands	1
California	6	Maryland	2	South Carolina	1
Canada	1	Mexico	20	Spain	4
Cape Verde Islands	1	Minnesota	1	Sweden	1
Central America	1	Mississippi	5	Syria	1
China	16	Missouri	1	Texas	18
Dutch Guiana	1	New Jersey	1	Venezuela	1
Finland	3	New York	2	Virginia	1
Florida	17	North Carolina	2	West Indies	1
France	1	Oklahoma	1	Wisconsin	1
Georgia	3	Palestine	3		
Greece	14	Panama	1	Total	293

Admission of patients by States

Arizona	1	Kansas	1	South Carolina	1
Arkansas	1	Louisiana	25	Texas	4
California	14	Massachusetts	2	Washington	1
Colorado	2	Michigan	3	Wisconsin	1
Connecticut	1	Missouri	2		
Florida	3	New York	8	Total	73
Illinois	1	Pennsylvania	2		

Eleven patients were paroled with "leprosy arrested" and as being no longer a menace to public health. This number, the largest discharged in any 12-month period, represents 4 per cent of the mean population for the fiscal year. Twenty-nine patients have been paroled in the seven years of Public Health Service administration; up to June 30, 1928, only one of these had relapsed and been readmitted for further treatment.[1]

Medical service.—During the year, 185 patients were admitted from their permanent quarters to the four infirmary buildings; 13 men and 11 women remaining in the infirmary during the entire year suffering from infirmities and deformities which render them helpless. Infirmary patients were discharged to their own quarters after an average stay of three weeks. Not infrequently discharge to quarters was necessary before satisfactory convalescence in order to accommodate a more needy patient.

The mean annual population of the hospital has increased steadily since its beginning under State régime in 1894, and forecasts a need for additional beds in the early future. The population was 293,[2] at the end of the fiscal year.

Lepra therapy.—Among the antileprosy remedial agents used in this hospital, crude chaulmoogra oil has continued to occupy first place. The irritating properties of the crude oil which, when continued for months and years, have discouraged most patients, have been overcome by the introduction of benzocaine into the crude oil. The satisfactory results, a preliminary report of which has been published,[3] have been continued, and at present 160 patients are taking biweekly intramuscular injections of benzocaine-chaulmoogra oil. The average dose is 5 cubic centimeters at each injection. The majority of the patients show satisfactory improvement.

Mention has also been made[3] of the use of benzocaine with chaulmoogra oil in oral administration to counteract the emetic effect and gastric irritation associated with the oral administration of chaulmoogra oil to some patients. This method of administration is being continued with very satisfactory results. Nearly all patients who

[1] EDITORIAL NOTE.—By Jan. 15, 1929, 12 additional patients had been paroled with "leprosy arrested."
[2] EDITORIAL NOTE.—The number of leper patients on Sept. 8, 1928, was 313.
[3] Pub. Health Rep., vol. 42, No. 49, Dec. 9, 1927.

were unable to take the crude chaulmoogra oil are taking it in this form with no complaint from gastric disturbance.

During the year, a series of foreign proteins have been used experimentally in the hope that the reaction provoked by them might exert a favorable influence on the course of leprosy.

The proteins included hirudin, heparin, and avlan, a lactalbumin. Of these, hirudin may be said to provoke a definite reaction, while the avlan and heparin have failed to show anything definitely or constantly positive.

In one case in which hirudin has been used (the only patient on this drug who has persisted in treatment up to the present time) the patient shows a very marked clinical improvement, though still bacterioscopically positive.

Recently glandular extracts have been given by mouth to a series of cases. The glands selected included the thymus, ovary, and thyroid.

One patient on thyroid extract has improved remarkably, though the improvement can not be positively attributed to the treatment, as the patient was in an improving phase of the disease when treatment was commenced.

Neuropsychiatric service.—Examinations of new and certain older patients have continued, in order that mental and neurologic changes may be observed coincident with the progress of leprosy.

During the year, 68 new patients and 56 old patients were examined. The total number of consultations was 234. Of the new patients, 48 were male and 20 female. Eleven cases were examined neurologically before being discharged on parole.

Of the 124 new patients seen, 20 presented either marked or mild facial paralysis, the degree of severity varying in each case. This condition was met with in the mixed type of leprosy, where the nerve type predominated.

One totally blind individual has developed a mild mental depression which can not yet be diagnosed as a definite psychosis.

Surgical service.—During the year there have been no major surgical operations, but 118 minor operations were performed with satisfactory results.

Orthopedic surgery and physiotherapy section.—The attendance of patients has been encouraging, and improvement generally has been experienced by those who have been able to take treatments. The work is somewhat handicapped because certain patients do not attend regularly, owing to the flaring up of their general condition, or for personal reasons.

During the year 38,736 treatments were given. In August, 1927, 4,257 treatments were given to 73 patients—the greatest number given in any one month.

The general cooperation of the patients attending and their willingness to take treatment have markedly increased, and encouragement is felt in the belief that the future will give still greater improvement.

Operations performed for the correction of deformities have, without exception, proved successful.

Ophthalmologic service.—This service has continued its important work in the prophylaxis and treatment of eye complications; 1,084 consultations and treatments were given by the attending ophthalmologist. The operations consisted of—

Refractions	51
Advancement of internal rectus for strabismus	1
Cauterization of cornea	4
Chalazion operation	1
Dilatation of lachrymal duct	1
Excision of lachrymal sac	1
Iridectomy	2
Plastic operation for ptosis	2
Pterygium, operation for	2

Leprous ophthalmia, one of the most distressing and painful complications, has continued to manifest itself. Routine procedures directed toward prophylaxis and cure have, in many instances, apparently failed.

Recently, a small group of patients suffering from acute or chronic ophthalmia have been given an experimental treatment which has furnished temporary relief from intense photophobia and pain and appears to have some favorable result on early corneal opacity.

Ten lepers are at present under ophthalmological treatment. In two, photophobia has been relieved, although some inflammation persists; in four, these symptoms have been relieved; in three, the symptoms have been relieved, although less severe attacks have recurred; one patient shows but slight improvement. These encouraging results, if confirmed and continued in a larger series, will be the subject of a later and more detailed report.

Dental section.—It has been observed during the past year that the percentage of pyorrhea alveolaris and leprous oral lesions has decreased considerably. Satisfactory results have been obtained in denture construction, crown and bridge work, and general prophylaxis.

Occupational therapy.—In continuation of the policy of employing lepers in useful and gainful occupations, on an average, 82 patients have been continuously engaged in various minor activities in the hospital. In so far as practicable, most nontechnical work within the colony proper, excepting that in connection with the dietetic and laundry departments, has been performed by the lepers, who received compensation for this work. The results, in terms of work performed, have been very satisfactory. It has followed that the employment of

the large number of patients has assisted in maintaining proper morale.

Considerable doubt has existed in the minds of those who have had extensive experience with lepers concerning the practicability of using, in this hospital, occupational therapy such as is employed in other hospitals for chronic diseases. In a leprosy hospital, certain almost insurmountable obstacles are ever present. The progressive loss of sensation, coincident upon nerve destruction, renders the sense of touch almost completely absent; the progressive atrophy of certain muscles of the hands and feet renders coordination increasingly difficult; these conditions, in conjunction with ocular disturbances, tend, in many instances, to leave the individual leper dependent on others.

As a further element of depression, many lepers appear to suffer from an inertia of toxic origin, possibly resulting from the activity of the myriads of leprosy organisms harbored or from the invasion of secondary organisms finding suitable soil in already devitalized tissue. This lethargy, upon superficial consideration, should be susceptible of some neutralization by occupational therapy.

To determine what, if any, additional forms of occupational therapy might be instituted among the lepers, a careful and exhaustive survey of the situation was made by a field officer, lent by the American Occupational Therapy Association, who determined that, of the entire population of the hospital, only 10 per cent might be given occupational therapy in addition to that now carried out, and that while there is indicated a need for a limited program of occupational therapy for certain small groups and individuals among the patients, the nature of the disease, the mental condition resulting from it, which makes for instability, lack of concentration and sustained effort, and the fact that the participation in any treatment program is entirely voluntary on the part of the patient, would, of necessity, make the degree of usefulness and permanency of such a program problematical. One of the hospital nurses is being trained in the simpler steps of occupational therapy to institute such minor occupations as may be at present developed, with the aim to amplify the work as additional patients are available.

The increasing satisfaction of the average patient with his gradually improving outlook on life is evidenced by the diminishing percentage of the leper population which leaves the institution without official permission. While this percentage is decreasing, the population of the hospital has increased more rapidly, so that, numerically, absconding is actually increasing; and this numerical increase causes some concern.

Most of the lepers who abscond, sooner or later return to the hospital. A number return at their own expense, having accomplished

the purpose of their absconding; some notify the authorities that they are ready to return and are sent back to the hospital at the expense of the Public Health Service; others, perhaps in the majority, remain at large until apprehended; while a few evade apprehension and eventually succumb.

The Public Health Service is charged with the duty of detaining, treating, and releasing lepers, and it follows that it is also charged with the duty of apprehending lepers who leave the institution without official permission.

A natural question arises at this point as to why lepers are not prevented from absconding. The answer is complicated by several factors. A prison like institution would reduce the number of abscondings, but the number of voluntary new admissions would also automatically be reduced to a minimum, defeating the present method of admission by persuasion, and would almost certainly bring about the unsatisfactory status existing in some countries where the leper hides from the authorities until his disease is so far advanced as to be obvious to even a layman and almost hopeless of medical relief. Prison like segregation, particularly of those who have come to the hospital voluntarily, would be destructive of the excellent morale which now pervades the hospital.

Obviously then, since the patients are not under restraint or special surveillance, some leave the reservation without permission. This question of absconding has always confronted administrators in charge of the segregation of lepers.

To overcome the tendency to abscond from nostalgia or under extenuating circumstances, it has been the custom, in recent years, to permit a leper to visit his home under certain restrictions for a short period of time, the visit being prearranged with the consent of the appropriate State and city health officers and being under the immediate supervision of an attendant.

In spite of this privilege of temporary parole, some lepers leave the hospital without official permission. Their reasons for leaving are many. The most frequent offender is the malcontent who, paradoxically, becomes dissatisfied with surroundings even better than those to which he has been accustomed, and with total disregard for relatives, friends, or the public, returns to his accustomed squalor and making the best, or worst, of his time, lives a riotous life until excesses undermine his resistance and he seeks medical assistance or is reported to the authorities by neighbors.

Of the 55 lepers who have absconded from the hospital in the seven years of Federal control, and who are at large and presumably still alive, about one-half have been native born and one-half foreign born. It seems probable, from the source of the lepers, that a large percentage of the absconders are still in the Gulf Coast States.

The Public Health Service has ample police power to return an absconded leper to Carville once apprehension is accomplished, but the facilities of the service for discovery of the absconder are very limited and, necessarily, great dependence must be placed upon State and city health authorities for cooperation in apprehending absconders.

It has been the custom in the past for the hospital to notify appropriate city and State health authorities of abscondings in order that the former residence of the leper may be watched until some clue is obtained concerning his probable whereabouts. After apprehension of the absconder, an attendant accompanies him to Carville at the expense of the Public Health Service.

When an absconder has been returned to the hospital, the medical officer in charge is empowered to use restraint to prevent reabsconding, or as an alternative to accept a bond to be forfeited for the second offense. Comparatively few abscond more than once.

DEATH RATES IN A GROUP OF INSURED PERSONS

Rates for Principal Causes of Death for December, 1928, and for the Years 1911 and 1918 to 1928

The accompanying tables are taken from the Statistical Bulletin for January, 1929, issued by the Metropolitan Life Insurance Co. They present the mortality experience of the industrial insurance department of the company for the principal causes of death for December, 1928, and a comparison of the rates for the years 1911 and 1918 to 1928, inclusive. The rates are based on a strength of more than 18,000,000 insured persons in the United States and Canada. In recent years the general death rates in this group have been about 72 per cent of the rates for the death registration area of the United States.

DECEMBER, 1928

The death rate for this group of insured persons rose sharply in December. Influenza and pneumonia caused one-sixth of the deaths during the month. The death rate for influenza for December was 48.3 per 100,000, as compared with 14.1 in November, 1928, and 17.9 in December, 1927. The pneumonia death rate was 102.9 per 100,000, as compared with 63.1 for November, 1928, and 84.6 for December, 1927.

The death rate for tuberculosis was only 75.1 per 100,000, a decline of 11.8 per cent as compared with December, 1927, and the lowest December tuberculosis death rate ever recorded for this group of persons.

Other causes of death with lower mortality rates than for December of 1927 are typhoid fever, measles, scarlet fever, diphtheria, cancer, diabetes, diarrheal complaints, suicide, and accidents.

Death rates (annual basis) per 100,000 for principal causes of death

[Industrial department, Metropolitan Life Insurance Co.]

Cause of death	Rate per 100,000 lives exposed [1]			
	December, 1928	November, 1928	December, 1927	Year 1927
Total, all causes	917.2	822.9	877.6	887.9
Typhoid fever	1.6	2.9	2.9	4.6
Measles	1.4	.9	2.0	4.1
Scarlet fever	2.4	1.5	2.5	3.1
Whooping cough	4.8	2.9	3.7	6.4
Diphtheria	11.2	9.8	14.5	10.6
Influenza	48.3	14.1	17.9	17.8
Tuberculosis (all forms)	75.1	75.6	85.1	93.6
Tuberculosis of respiratory system	67.6	65.7	75.1	81.9
Cancer	73.3	71.6	73.9	74.3
Diabetes mellitus	17.8	16.4	18.4	16.8
Cerebral hemorrhage	56.8	51.7	56.8	55.1
Organic diseases of heart	143.0	137.3	137.2	132.5
Pneumonia (all forms)	102.9	63.1	84.6	77.7
Other respiratory diseases	19.3	16.8	16.6	11.7
Diarrhea and enteritis	13.9	19.1	16.3	24.6
Bright's disease (chronic nephritis)	67.9	65.2	66.6	69.5
Puerperal state	9.8	11.6	12.4	15.5
Suicides	7.1	7.6	7.3	8.3
Homicides	6.9	6.6	6.6	7.3
Other external causes (excluding suicides and homicides)	58.9	63.4	60.7	63.9
Traumatism by automobiles	20.3	20.2	16.7	18.4
All other causes	194.9	184.7	191.5	190.5

[1] All figures include infants insured under one year of age.

YEAR 1928 AND COMPARISON WITH 1911 AND YEARS 1918 TO 1927

The general death rate in this group for 1928 was 8.6 per 1,000, as compared with 8.4 in 1927, 8.9 in 1926, and 12.5 in 1911. The expectation of life among these policyholders in 1927 was 56.4 years, as compared with 46.6 years in 1911–12—a gain of 9.8 years in the 16-year period.

New low annual death rates were recorded for typhoid fever, scarlet fever, diphtheria, tuberculosis, diarrheal complaints, and puerperal conditions, all of which are diseases of major public health importance.

The death rate for tuberculosis (all forms) was 90 per 100,000 in 1928, which is a decrease of 4.1 per cent from the former minimum of 93.8 established in 1927. The tuberculosis death rate for this group has declined 60 per cent since 1911, when the rate was 224.6 per 100,000.

The darker side of the picture shows increases for diabetes, cancer, organic heart disease, cerebral hemorrhage, and chronic nephritis. The diabetes death rate (17.8 per 100,000—the highest ever recorded for this group) has increased 34 per cent since 1911. The death rate

for organic heart disease rose to 143.4 per 100,000 in 1928, only a fraction below the maximum of 143.8 recorded in 1912, and marks an increase of 6.5 per cent over the rate for 1927 (134.7). The cancer death rate, 76.4 per 100,000, also reached a new maximum in 1928. This was 12 per cent higher than the rate for 1911 (68.0).

The death rate for acute and chronic alcoholism (not including deaths from acute posionings by methyl and denatured alcohol), declined from 3.5 per 100,000 in 1927 to 3.3 in 1928, while the rate for cirrhosis of the liver was the same as that in 1927—6.7 per 100,000. There were 35 deaths from methyl and denatured alcohol in 1928, as compared with 29 in both 1927 and 1926.

For the first time in the records of the company there was a drop in the death rate for automobile accidents, which declined from 18.7 per 100,000 in 1927 to 18.6 in 1928.

Death rates for principal causes per 100,000 lives exposed, 1911 and 1918 to 1928, ages 1 and over

[Industrial department, Metropolitan Life Insurance Co.]

Cause of death	1928	1927	1926	1925	1924	1923	1922	1921	1920	1919	1918	1911
All causes of death	862.5	842.2	885.7	846.3	848.0	897.1	882.9	870.6	989.4	1,063.0	1,559.2	1,253.0
Typhoid fever	2.7	4.7	4.2	4.6	4.4	5.2	5.7	6.7	6.7	7.3	11.5	22.8
Communicable diseases of childhood	18.9	19.7	25.9	19.7	26.2	33.1	29.8	37.9	42.1	31.5	41.6	58.9
Measles	4.1	3.4	8.0	2.5	5.7	8.4	4.3	3.2	8.5	3.5	8.6	11.4
Scarlet fever	2.6	3.0	3.4	3.4	4.3	4.4	4.9	7.0	6.0	3.9	3.6	13.1
Whooping cough	2.7	3.1	5.0	3.6	3.5	4.8	2.6	3.9	6.6	3.2	10.1	7.1
Diphtheria	9.4	10.2	9.5	10.2	12.7	15.5	18.0	23.8	22.1	20.9	19.3	27.3
Influenza and pneumonia	94.1	78.7	105.6	88.3	84.4	107.7	95.3	76.5	159.5	214.1	542.2	131.2
Influenza	21.9	15.7	27.4	19.4	14.2	30.1	21.7	8.7	53.5	96.9	272.4	15.9
Pneumonia	72.3	63.0	78.2	69.0	70.2	77.6	73.7	67.8	106.1	117.2	269.8	115.3
Poliomyelitis	1.2	2.0	.7	1.4	1.0	.7	.9	1.7	1.0	.6	1.1	1.6
Tuberculosis (all forms)	90.0	93.8	99.5	98.2	104.4	110.5	114.2	117.4	137.9	156.5	189.0	224.6
Tuberculosis of respiratory system	79.4	83.0	87.9	87.0	93.4	100.6	103.6	105.6	124.0	141.6	171.2	203.0
Cancer (all forms)	76.4	75.6	75.1	71.8	71.5	72.7	72.0	71.7	69.8	67.0	67.2	68.0
Diabetes mellitus	17.8	17.1	17.0	15.5	15.1	16.2	17.2	15.5	14.1	13.4	14.0	13.3
Alcoholism	3.3	3.5	3.7	3.0	2.9	3.0	2.1	.9	.6	1.4	1.8	4.0
Cerebral hemorrhage, apoplexy	57.2	56.0	56.5	54.4	61.1	61.9	62.9	62.1	61.3	59.8	64.0	64.2
Diseases of heart	143.4	134.7	136.4	128.7	125.2	128.7	126.7	117.4	117.0	113.9	141.7	141.8
Diarrhea and enteritis	8.6	9.1	10.5	12.3	11.3	11.1	10.8	14.2	15.8	16.9	23.4	28.0
Chronic nephritis (Bright's disease)	71.3	70.8	74.9	71.2	66.5	69.6	70.3	68.0	70.8	73.5	86.8	95.0
Puerperal state, total	14.1	15.7	15.6	16.9	17.2	17.9	19.0	19.8	23.0	20.0	27.4	19.8
Puerperal septicemia	4.9	6.4	6.0	6.6	6.6	6.9	7.4	8.5	8.6	6.7	7.3	8.8
Puerperal albuminuria and convulsions	3.1	3.2	3.6	3.8	4.3	4.2	4.7	4.9	5.0	4.8	4.9	4.7
Accidents of pregnancy	1.6	1.3	1.7	1.6	1.6	1.8	1.7	1.6	3.1	3.0	6.9	1.7
Total external causes	76.5	79.8	77.2	78.3	76.9	77.8	71.8	72.0	72.0	94.2	128.9	97.9
Suicides	8.4	8.4	7.8	7.0	7.3	7.4	7.5	7.6	6.1	6.8	7.6	13.3
Homicides	6.7	7.4	7.2	7.4	7.2	7.3	6.3	6.7	5.8	6.9	6.2	7.2
Accidents—total	61.3	63.9	62.3	63.9	62.4	63.0	58.0	57.5	59.6	63.8	75.5	77.4
Accidental burns	5.3	5.3	6.1	6.1	6.4	6.3	6.1	6.6	8.1	8.1	9.0	8.8
Accidental drowning	7.1	6.8	6.3	6.5	7.3	6.7	7.3	8.2	6.7	8.6	9.4	10.2
Accidental traumatism by fall	7.9	8.5	7.9	8.1	7.7	8.4	7.3	7.1	7.3	8.0	10.4	13.2
Accidental traumatism by machines	1.2	1.4	1.4	1.3	1.3	1.7	1.6	1.0	1.7	1.6	2.4	1.8
Railroad accidents	3.3	4.1	4.2	4.0	4.0	4.9	4.1	3.9	5.2	5.7	7.8	9.5
Auto accidents	18.6	18.7	17.0	16.8	15.9	15.4	13.6	12.2	11.1	10.7	10.3	2.3
All other accidents	18.0	19.1	19.4	21.2	19.7	19.5	18.0	18.5	19.5	21.2	26.1	31.6
War deaths	----	(1)	(1)	(1)	(1)	----	.1	.1	.5	16.6	39.7	----
Other diseases and conditions	187.0	181.0	183.6	183.4	180.9	181.7	185.1	190.5	197.8	193.5	219.7	283.5

[1] Death rate less than 0.5 per 100,000

COURT DECISIONS RELATING TO PUBLIC HEALTH

Provisions in bovine tuberculosis eradication laws relative to establishment of accredited areas held valid.—(Iowa Supreme Court; Peverill *v.* Board of Supervisors of Black Hawk County et al. Reuter, Intervener; 222 N. W. 535; decided December 14, 1928.) An injunction was sought to prevent the defendants from publishing a notice of enrollment of Black Hawk County as an accredited area under the statutory provisions designed to eradicate bovine tuberculosis. Among the questions raised and considered was that of the validity of the legislation involved. The law, as it existed at the time that the secretary of agriculture declared said county to be an accredited area, gave the secretary the right to enroll a county under the accredited area plan where the county was operating under the county area plan and 75 per cent of the owners of breeding cattle filed agreements. No provision was made in the law for notice and opportunity to be heard as to those owners who had not signed agreements.

Another and later law legalized and validated acts of the secretary of agriculture theretofore done in enrolling counties under the accredited area plan, and this act the supreme court upheld when the action of the secretary in declaring Black Hawk County to be an accredited area was attacked on the ground that the number of petitions and agreements filed was less than the required 75 per cent. The court pointed out that the legislature could originally have required any number it chose, such as 25 per cent or 50 per cent of the owners instead of 75 per cent, and that the legalizing act in this aspect was valid.

Another question was then presented as to the validity of the statutory provisions concerning the establishment of accredited areas because of the failure of the law to provide for notice and an opportunity to be heard to those cattle owners who had not signed agreements. The court stated the question thus: "Does this failure to observe due process of law in this respect make this statute unconstitutional, where the statute, as it is in this case, was enacted under the exercise of the police power?" The court, after reviewing at length several decisions of the United States Supreme Court, said:

> The conclusion we draw from this review of the decisions of the Supreme Court of the United States is that the due process rule is not a limitation upon the right of the State to exercise its police power, unless the attempted exercise of such power is arbitrary or unreasonable, or an improper use of such power. This seems to be the necessary conclusion from these cases.
>
> Turning now to the instant case, we find nothing to sustain the contention that the exercise of the police power of this State, by reason of the enactments herein referred to, is arbitrary or unreasonable. Holding, therefore, as we do, that the State of Iowa properly exercised its police power in enacting these statutes, it necessarily follows that the due process clause of the fourteenth amendment of the Constitution of the United States does not restrict or limit the right

of the State to exercise its police power as it did. In short, when the legislature, within proper bounds, exercises its police power, the due process clause of the fourteenth amendment of the Constitution of the United States does not operate.

The action of the trial court in dismissing the petitions was affirmed.

Enforcement of city ordinance prohibiting erection, etc., of tuberculosis hospital within city enjoined.—(South Carolina Supreme Court; Law et al., Spartanburg County Board, *v.* City of Spartanburg, 146 S. E. 12; decided December 7, 1928.) A 1928 act provided, among other things, that there should be erected a tuberculosis hospital for Spartanburg County, that the location should be determined by the trustees of the Spartanburg General Hospital, and that the construction contract should be let and the equipment purchased by the Spartanburg County Board. The trustees of the general hospital selected a site, within the city of Spartanburg, which adjoined the grounds of the said hospital. Thereafter the city council of Spartanburg passed an ordinance prohibiting the erection, maintenance, establishment, and operation within the city of any hospital, sanatorium, camp, or other establishment for the treatment of tuberculosis. Section 4388, Code 1922, volume 3, gave cities the power to pass health ordinances, but such section contained a proviso that such ordinances should not be inconsistent with the laws of the State.

The county board petitioned to permanently enjoin the city from enforcing or attempting to enforce the said ordinance, and to require the city to grant to the county board a permit to construct a hospital. The supreme court granted the plaintiffs' petition as prayed for. In so deciding, the court stated, in part, as follows:

> That which the State authorizes, directs, requires, licenses, or expressly permits a municipality is powerless to prohibit. * * *
>
> An ordinance which is repugnant either to the constitution or general laws is ipso facto void. * * *
>
> "Where the legislature directs or authorizes a particular thing to be done, the doing thereof can not be charged or complained of as a nuisance, although, apart from such authority, it might be a nuisance." 29 Cyc. 1197. * * *
>
> A municipal corporation, although empowered by law to declare what shall constitute a nuisance, may not declare that to be one which in fact is not. * * *
>
> When the legislature enacted the statute authorizing and requiring Spartanburg County to establish and maintain a tubercular hospital, it declared that the establishment and maintenance of such hospital was not detrimental to the public health, and the city of Spartanburg, therefore, could not by ordinance say that it is, nor can any other city in the State say so by similar ordinance. * * *
>
> * * * The Spartanburg General Hospital is a part of the county government, and the legislature in its wisdom may provide for the establishment of a separate hospital to care for the tubercular, and is authorized so to do by the constitution of the State. It is a humane act, intending to relieve the suffering and sick from the great "white plague," and the ordinance of the city was passed to prevent what the legislature had given the petitioners the right to do.

DEATHS FROM INFLUENZA AND PNEUMONIA IN LARGE CITIES

(From the Weekly Health Index, February 27, 1929, issued by the Bureau of the Census, Department of Commerce)

The annual death rate (all causes) for 61 cities is 17.4 per 1,000 population for the eight weeks of 1929, as against a rate of 13.7 for the corresponding weeks of 1928.

For the weeks ended January 26, February 2, February 9, February 16, and February 23, 1929,[a] the totals for 55 identical cities from which complete reports were received were, respectively, for influenza deaths, 683, 452, 304, 286, and 217, and for pneumonia deaths, 1,857, 1,587, 1,335, 1,219, and 1,058.

Deaths from influenza and pneumonia (all forms) in 78 large cities durin geight weeks ended February 23, 1929

DEATHS FROM INFLUENZA

City	Week ended—							
	Jan. 5, 1929	Jan. 12, 1929	Jan. 19, 1929	Jan. 26, 1929	Feb. 2, 1929	Feb. 9, 1929	Feb. 16, 1929	Feb. 23, 1929
Total	1,426	1,516	1,118	833	545	382	366	[1] 235
Akron	5	6	3	1	1	1	0	1
Albany	4	5	11	9	13	4	3	0
Atlanta	31	----	18	12	4	10	9	----
Baltimore	31	46	37	25	19	18	13	9
Birmingham	60	108	61	34	17	3	14	2
Boston	4	19	16	25	16	9	5	3
Bridgeport	3	2	15	17	12	6	3	3
Buffalo	10	22	7	6	3	6	4	----
Cambridge	0	0	3	5	4	4	1	1
Camden	4	10	8	2	2	0	2	1
Canton	27	13	2	5	2	1	----	----
Chicago	67	55	39	23	11	8	12	15
Cincinnati	45	40	39	15	6	7	9	5
Cleveland	65	65	46	17	16	7	8	6
Columbus	33	46	25	13	7	3	6	7
Dallas	25	21	18	12	10	4	9	9
Dayton	3	5	8	1	1	1	11	----
Denver	19	15	14	4	1	6	10	4
Des Moines	10	0	0	1	5	0	1	1
Detroit	90	73	32	7	20	8	10	9
Duluth	4	4	0	0	3	1	3	4
El Paso	29	18	13	12	10	9	15	----
Erie	10	23	14	5	4	6	6	----
Fall River	5	8	3	15	7	7	6	3
Flint	19	16	10	3	----	----	----	----
Fort Worth	23	37	23	21	3	4	3	3
Grand Rapids	6	10	2	2	1	0	1	0
Houston	17	13	10	3	1	2	2	0
Indianapolis	18	16	5	6	3	4	4	3
Jersey City	3	7	12	11	13	5	5	4
Kansas City, Kans	0	0	2	0	1	1	0	2
Kansas City, Mo	9	4	7	4	2	5	1	3
Knoxville	15	18	6	11	2	3	1	0
Los Angeles	25	17	11	8	7	5	3	----
Louisville	7	8	10	7	2	1	1	2
Lowell	0	0	0	2	0	0	1	0
Lynn	0	2	1	2	6	2	----	1
Memphis	42	49	27	24	11	10	6	----
Milwaukee	23	36	19	13	5	4	6	0
Minneapolis	27	20	8	8	4	7	1	2

[1] Incomplete returns.

[a] Tables showing the numbers of influenza and pneumonia deaths in these cities from the week ended Nov. 3, 1928, to the week ended Jan. 19, 1929, were published in Public Health Reports for Jan. 11, 1929, p. 63, and Feb. 15, 1929, p. 350.

Deaths from influenza and pneumonia (all forms) in 78 large cities during eight weeks ended February 23, 1929—Continued

DEATHS FROM INFLUENZA—Continued

City	Week ended—							
	Jan. 5, 1929	Jan. 12, 1929	Jan. 19, 1929	Jan. 26, 1929	Feb. 2, 1929	Feb. 9, 1929	Feb. 16, 1929	Feb. 23, 1929
Nashville	13	35	23	19	9	3	6	4
New Bedford	1	2	5	2	----	----	----	----
New Haven	1	2	2	5	3	3	5	1
New Orleans	84	53	30	15	14	10	15	19
New York	55	127	154	167	124	74	61	46
Newark, N. J	12	22	20	16	3	3	5	2
Oakland	5	5	6	0	1	----	2	0
Oklahoma City	11	10	9	7	5	----	3	6
Omaha	0	0	0	0	0	----	----	----
Paterson	7	10	8	6	0	1	0	1
Philadelphia	56	72	55	55	16	14	19	12
Pittsburgh	177	98	51	19	13	19	6	5
Portland, Oreg	10	8	3	5	2	3	----	3
Providence	2	5	6	15	9	7	2	4
Richmond	17	30	18	6	5	1	4	5
Rochester	3	6	6	6	3	2	2	1
St. Louis	9	10	9	5	4	1	2	1
St. Paul	12	13	6	2	0	2	0	2
Salt Lake City	3	2	2	2	3	1	0	2
San Antonio	11	16	19	21	15	8	10	5
San Diego	3	5	3	2	0	4	1	1
San Francisco	7	5	8	3	4	4	5	3
Schenectady	4	5	8	7	5	2	2	0
Seattle	15	11	10	5	8	4	1	1
Somerville	0	0	2	2	2	1	0	0
Spokane	7	3	3	0	1	3	2	----
Springfield, Mass	1	1	1	2	1	1	1	0
Syracuse	9	12	3	1	2	2	1	0
Tacoma	4	1	3	3	2	1	2	----
Toledo	16	20	17	10	7	8	5	1
Trenton	6	7	5	8	3	1	0	2
Utica	3	2	11	2	4	3	1	----
Washington, D. C	10	25	11	18	12	7	4	4
Waterbury	5	0	0	1	1	1	0	0
Wilmington, Del	4	3	1	1	2	2	3	1
Worcester	1	2	0	1	----	----	----	----
Yonkers	2	2	3	0	0	0	0	0
Youngstown	22	29	12	3	7	4	1	0

DEATHS FROM PNEUMONIA (ALL FORMS)

Total	2,468	2,574	2,300	2,100	1,814	1,522	1,413	[1] 1,143
Akron	32	31	10	13	13	8	3	10
Albany	12	15	16	23	17	11	10	3
Atlanta	19	18	15	13	11	12	8	----
Baltimore	65	94	87	83	49	54	51	49
Birmingham	27	44	26	11	10	7	6	5
Boston	39	52	80	96	111	87	67	46
Bridgeport	6	12	15	20	12	9	5	8
Buffalo	47	65	63	61	52	29	33	24
Cambridge	7	7	13	14	21	10	4	7
Camden	26	23	8	8	5	7	5	2
Canton	19	8	7	3	6	4	6	----
Chicago	208	183	125	91	90	73	92	85
Cincinnati	63	56	41	39	24	14	18	23
Cleveland	106	124	91	36	32	28	45	34
Columbus	34	28	17	9	8	8	9	11
Dallas	24	27	19	14	11	7	7	10
Dayton	13	18	12	6	2	5	7	----
Denver	16	14	15	11	12	15	16	15
Des Moines	8	7	10	9	8	3	2	6
Detroit	160	134	75	45	50	24	59	60
Duluth	1	3	2	3	0	3	2	2
El Paso	6	7	6	4	4	7	15	----
Erie	3	11	4	2	6	3	2	----
Fall River	3	8	13	12	13	11	0	5
Flint	17	26	16	3	3	4	9	8
Fort Worth	12	13	6	4	7	3	3	----
Grand Rapids	3	5	3	0	5	2	1	5
Houston	46	31	20	16	9	9	5	9

[1] Incomplete returns.

Deaths from influenza and pneumonia (all forms) in 78 large cities during eight weeks ended February 23, 1929—Continued

DEATHS FROM PNEUMONIA (ALL FORMS)—Continued

City	Week ended—							
	Jan. 5, 1929	Jan. 12, 1929	Jan. 19, 1929	Jan. 26, 1929	Feb. 2, 1929	Feb. 9, 1929	Feb. 16, 1929	Feb. 23, 1929
Indianapolis	44	27	18	22	19	18	21	15
Jersey City	23	28	40	34	26	28	17	15
Kansas City, Kans	12	7	8	4	5	8	10	8
Kansas City, Mo	23	19	19	11	21	23	17	17
Knoxville	18	26	24	12	0	1	0	2
Los Angeles	28	26	20	26	26	31	18	----
Louisville	31	39	59	47	28	28	15	16
Lowell	5	4	12	14	12	16	8	4
Lynn	1	3	7	7	14	12	4	3
Memphis	25	17	10	18	6	7	8	----
Milwaukee	40	43	28	23	19	23	18	9
Minneapolis	21	33	17	15	9	4	9	19
Nashville	3	9	12	11	7	10	3	8
New Bedford	5	19	13	27	13	12	6	7
New Haven	7	9	11	14	9	16	14	10
New Orleans	62	31	18	17	17	10	11	22
New York	302	437	565	617	492	404	353	223
Newark, N. J	32	56	38	40	36	19	14	6
Oakland	11	7	7	2	8	5	6	4
Oklahoma City	18	27	25	10	10	13	8	12
Omaha	19	6	15	10	11	15	9	7
Paterson	12	16	15	13	14	10	6	12
Philadelphia	207	180	157	123	94	73	66	71
Pittsburgh	154	93	62	40	38	40	31	30
Portland, Oreg	20	15	8	7	10	3	12	13
Providence	9	10	24	22	28	22	17	11
Richmond	14	12	8	7	7	3	5	14
Rochester	8	7	8	26	24	21	10	10
St. Louis	72	76	61	47	46	34	46	39
St. Paul	25	16	11	9	7	12	9	9
Salt Lake City	1	4	2	2	4	4	3	4
San Antonio	12	10	17	7	4	10	17	----
San Diego	6	8	4	5	1	2	3	2
San Francisco	19	11	20	14	8	12	18	9
Schenectady	3	8	9	10	8	0	5	----
Seattle	13	13	9	6	10	8	10	11
Somerville	7	2	7	10	10	9	6	7
Spokane	4	5	4	1	3	1	4	----
Springfield, Mass	10	17	8	13	14	8	8	5
Syracuse	17	24	16	10	7	6	6	10
Tacoma	4	5	1	4	2	1	3	----
Toledo	18	14	5	5	8	8	11	9
Trenton	14	23	8	10	7	12	8	4
Utica	11	15	15	12	10	4	3	----
Washington, D. C	20	37	53	36	38	36	18	15
Waterbury	0	2	0	3	5	6	7	6
Wilmington, Del	11	9	15	11	10	5	11	4
Worcester	5	6	5	2	5	6	3	----
Yonkers	11	9	15	11	9	6	2	5
Youngstown	9	10	12	4	6	----	6	9

Blank spaces indicate that no report has been received.

DEATHS DURING WEEK ENDED FEBRUARY 23, 1929

Summary of information received by telegraph from industrial insurance companies for the week ended February 23, 1929, and corresponding week of 1928. (*From the Weekly Health Index, February 30, 1929, issued by the Bureau of the Census, Department of Commerce*)

	Week ended Feb. 23, 1929	Corresponding week, 1928
Policies in force	73, 314, 879	70, 368, 488
Number of death claims	14, 838	13, 357
Death claims per 1,000 policies in force, annual rate	10. 6	9. 9

Deaths from all causes in certain large cities of the United States during the week ended February 23, 1929, infant mortality, annual death rate, and comparison with corresponding week of 1928. (*From the Weekly Health Index, February 27, 1929, issued by the Bureau of the Census, Department of Commerce*)

City	Week ended Feb. 23, 1929		Annual death rate per 1,000, corresponding week, 1928	Deaths under 1 year		Infant mortality rate, week ended Feb. 23, 1929[2]
	Total deaths	Death rate[1]		Week ended Feb. 23, 1929	Corresponding week, 1928	
Total (62 cities)	8, 145	14. 5	14. 1	814	836	[3] 73
Akron	56			6	7	62
Albany [4]	30	15. 6	17. 8	0	7	0
Atlanta	89	18. 2	17. 6	8	10	83
White	53			3	7	
Colored	36	(5)	(5)	5	3	
Baltimore [4]	263	16. 6	15. 6	21	18	67
White	185			15	10	60
Colored	78	(5)	(5)	6	8	95
Birmingham	64	15. 0	17. 2	10	8	91
White	29			4	4	60
Colored	35	(5)	(5)	6	4	137
Boston	249	16. 3	17. 3	30	32	83
Bridgeport	39			5	13	86
Buffalo	156	14. 7	15. 1	16	17	69
Cambridge	31	12. 9	14. 5	4	7	72
Camden	31	12. 0	12. 7	1	5	17
Canton	19	8. 5	10. 3	4	2	93
Chicago [4]	766	12. 7	13. 2	61	75	84
Cincinnati	164			17	13	99
Cleveland	250	12. 9	9. 4	45	13	133
Columbus	95	16. 6	12. 6	7	7	66
Dallas	61	14. 6	12. 0	5	10	
White	52			4	7	
Colored	9	(5)	(5)	1	3	
Denver	86	15. 3	17. 8	5	15	48
Des Moines	44	15. 1	10. 3	4	1	72
Detroit	347	13. 2	12. 6	56	57	90
Duluth	30	13. 4	9. 0	0	3	0
Erie	33			4	2	82
Fall River [4]	39	15. 2	9. 7	5	5	94
Flint	42	14. 8	8. 1	4	4	49
Fort Worth	35	10. 7	10. 4	8	6	
White	27			3	5	
Colored	8	(5)	(5)	5	1	
Grand Rapids	36	11. 5	10. 2	2	5	30
Houston	65			10	7	
White	50			7	5	
Colored	15	(5)	(5)	3	2	
Indianapolis	111	15. 2	15. 2	7	4	58
White	92			6	4	56
Colored	19	(5)	(5)	1	0	60
Jersey City	103	16. 6	12. 2	14	10	108

[1] Annual rate per 1,000 population.
[2] Deaths under 1 year per 1,000 births. Cities left blank are not in the registration area for births.
[3] Data for 70 cities.
[4] Deaths for week ended Friday..
[5] In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta, 31; Baltimore, 15; Birmingham, 39; Dallas, 15; Fort Worth, 14; Houston, 25; Indianapolis, 11; Kansas City, Kans., 14; Knoxville, 15; Louisville, 17; Memphis, 38; Nashville, 30; New Orleans, 26; Richmond, 32; and Washington, D. C., 25.

Deaths from all causes in certain large cities of the United States during the week ended February 23, 1929, infant mortality, annual death rate, and comparison with corresponding week of 1928. (From the Weekly Health Index, February 27, 1929, issued by the Bureau of the Census, Department of Commerce)—Continued

City	Week ended Feb. 23, 1929		Annual death rate per 1,000, corresponding week, 1928	Deaths under 1 year		Infant mortality rate, week ended Feb. 23, 1929
	Total deaths	Death rate		Week ended Feb. 23, 1929	Corresponding week, 1928	
Kansas City, Kans.	43	19.0	14.6	4	1	88
White	28			4	0	101
Colored	15	(1)	(1)	0	1	0
Kansas City, Mo.	123	16.4	15.2	11	6	93
Knoxville	17	8.4	15.9	2	5	44
White	13			2	5	49
Colored	4	(1)	(1)	0	0	0
Los Angeles	311			30	18	88
Louisville	106	16.8	14.0	9	8	73
White	82			8	6	74
Colored	24	(1)	(1)	1	2	63
Lowell	38			0	4	0
Lynn	28	13.9	11.9	2	4	55
Memphis	63	17.3	23.6	8	6	94
White	26			1	3	19
Colored	37	(1)	(1)	7	3	219
Milwaukee	100	9.6	9.6	17	17	75
Minneapolis	115	13.2	12.2	15	9	93
Nashville	42	15.7	21.7	5	6	81
White	24			3	3	65
Colored	18	(1)	(1)	2	3	126
New Bedford	31			5	4	107
New Haven	38	10.6	14.7	6	4	92
New Orleans	189	23.0	20.6	20	17	99
White	112			10	9	70
Colored	77	(1)	(1)	10	8	168
New York	1,694	14.7	14.9	175	205	72
Bronx Borough	225	12.4	12.6	25	28	74
Brooklyn Borough	553	12.8	13.0	54	79	55
Manhattan Borough	680	20.3	22.1	69	76	84
Queens Borough	169	10.3	8.1	23	18	94
Richmond Borough	57	19.8	14.2	4	4	72
Newark, N. J.	91	10.0	15.5	10	22	53
Oakland	75	14.3	13.2	6	5	67
Oklahoma City	43			8	2	160
Omaha	68	16.0	12.9	10	2	117
Paterson	34	12.3	11.5	3	2	53
Philadelphia	556	14.1	14.6	52	50	74
Pittsburgh	212	16.5	14.6	16	22	55
Portland, Oreg.	101			2	1	23
Providence	79	14.4	10.4	4	11	35
Richmond	79	21.2	16.4	10	9	140
White	47			3	4	64
Colored	32	(1)	(1)	7	5	287
Rochester	93	14.8	12.4	11	8	93
St. Louis	274	16.9	16.8	16	21	54
St. Paul	47			5	4	51
Salt Lake City [1]	38	14.4	14.4	3	5	46
San Antonio	87	20.9	20.6	11	7	
San Diego	47	20.5	17.5	2	1	38
San Francisco	175	15.6	13.8	9	15	57
Schenectady	20	11.2	14.0	2	4	64
Seattle	84	11.5	10.6	6	0	64
Somerville	19	9.7	13.2	2	2	72
Spokane	33	15.8	14.4	2	4	52
Springfield, Mass.	44	15.4	10.8	1	2	17
Syracuse	61	16.0	15.0	3	4	36
Toledo	80	13.4	13.4	6	7	56
Trenton	43	16.2	16.9	5	3	91
Washington, D. C.	161	15.2	14.2	14	12	82
White	95			7	8	59
Colored	66	(1)	(1)	7	4	133
Waterbury	22			3	2	76
Wilmington, Del.	24	9.8	8.5	3	1	78
Worcester	64	10.9	15.9	7	2	88
Yonkers	30	12.9	15.9	5	3	117
Youngstown	33	9.9	9.9	4	3	57

[1] Deaths for week ended Friday.

[2] In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta, 31; Baltimore, 15; Birmingham, 39; Dallas, 15; Fort Worth, 14; Houston, 25; Indianapolis, 11; Kansas City, Kans., 14; Knoxville, 15; Louisville, 17; Memphis, 38; Nashville, 30; New Orleans, 26; Richmond, 32; and Washington, D. C., 25.

PREVALENCE OF DISEASE

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring

UNITED STATES

CURRENT WEEKLY STATE REPORTS

These reports are preliminary and the figures are subject to change when later returns are received by the State health officers

Reports for Weeks Ended February 23, 1929, and February 25, 1928

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended February 23, 1929, and February 25, 1928

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Feb. 23, 1929	Week ended Feb. 25, 1928	Week ended Feb. 23, 1929	Week ended Feb. 25, 1928	Week ended Feb. 23, 1929	Week ended Feb. 25, 1928	Week ended Feb. 23, 1929	Week ended Feb. 25, 1928
New England States:								
Maine	1	1	195	6	202	46	0	2
New Hampshire	2	1	40	12	13	39	0	0
Vermont	2		17		13	4	0	0
Massachusetts	62	127	169	11	285	1,691	1	1
Rhode Island	14	9	11		57	63	0	0
Connecticut	16	26	99	3	375	358	1	2
Middle Atlantic States:								
New York	237	391	[1] 126	[1] 55	834	1,650	36	9
New Jersey	107	152	52	16	194	790	5	3
Pennsylvania	115	194			1,199	1,047	10	2
East North Central States:								
Ohio	40	181	74	9	485	538	5	2
Indiana	21	26	133	25	404	151	0	0
Illinois	129	170	228	40	833	156	17	7
Michigan	57	60	25		342	532	20	1
Wisconsin	21	35	96	41	621	80	6	1
West North Central States:								
Minnesota	11	26	1	4	540	2	1	4
Iowa	20	13	111			65	2	0
Missouri	63	59	60	40	334	159	23	0
North Dakota	6	3		2	34		3	2
South Dakota	2		2		68	28	0	0
Nebraska	17	9	8		65	7	4	3
Kansas	17	22	70	51	315	72	0	0
South Atlantic States:								
Delaware					11	4	0	0
Maryland [2]	16	48	402	61	104	750	1	0
District of Columbia	18	38	28	2	8	54	0	0
West Virginia	16	16	140	50	195	119	0	2
North Carolina	36	50			118	3,877	2	0
South Carolina	21	15	922	1,058	1	1,270	0	0
Georgia	7	4	191	189	89	325	1	1
Florida	11	9	15	5	16	16	0	1

[1] New York City only.
[2] Week ended Friday.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended February 23, 1929, and February 25, 1928—Continued

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Feb. 23, 1929	Week ended Feb. 25, 1928	Week ended Feb. 23, 1929	Week ended Feb. 25, 1928	Week ended Feb. 23, 1929	Week ended Feb. 25, 1928	Week ended Feb. 23, 1929	Week ended Feb. 25, 1928
East South Central States:								
Kentucky	8	5	14	----	26	243	0	0
Tennessee	4	12	344	103	4	474	2	4
Alabama	44	42	891	244	177	365	3	2
Mississippi	4	11	----	----	----	----	0	0
West South Central States:								
Arkansas	7	10	653	363	57	673	1	0
Louisiana	29	22	107	129	84	274	0	1
Oklahoma [2]	15	30	437	420	3	239	6	2
Texas	32	19	321	30	86	133	3	1
Mountain States:								
Montana	4	3	5	----	116	2	0	3
Idaho	4	1	3	----	1	----	6	6
Wyoming	1	3	7	2	11	----	0	4
Colorado	16	12	28	12	4	44	1	9
New Mexico	11	1	3	----	6	143	0	0
Arizona	1	6	3	4	5	7	8	1
Utah [1]	4	4	5	----	1	3	10	4
Pacific States:								
Washington	17	12	20	----	135	279	2	2
Oregon	13	10	95	22	162	72	0	1
California	70	124	133	51	47	151	13	4

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Feb. 23, 1929	Week ended Feb. 25, 1928	Week ended Feb. 23, 1929	Week ended Feb. 25, 1928	Week ended Feb. 23, 1929	Week ended Feb. 25, 1928	Week ended Feb. 23, 1929	Week ended Feb. 25, 1928
New England States:								
Maine	0	0	9	23	4	0	0	1
New Hampshire	0	0	5	23	0	0	0	0
Vermont	0	0	5	20	4	0	1	1
Massachusetts	0	2	240	326	0	0	3	4
Rhode Island	0	0	18	33	0	0	2	1
Connecticut	0	0	56	89	2	2	0	4
Middle Atlantic States:								
New York	3	4	479	808	0	10	17	16
New Jersey	1	0	134	294	0	0	0	2
Pennsylvania	0	1	332	568	0	0	12	9
East North Central States:								
Ohio	0	2	187	300	50	31	3	6
Indiana	0	0	227	150	35	114	14	0
Illinois	1	1	448	331	131	53	11	3
Michigan	0	1	304	228	16	37	6	10
Wisconsin	2	1	152	185	12	21	1	4
West North Central States:								
Minnesota	0	1	139	148	5	0	3	1
Iowa	1	1	225	82	54	77	4	1
Missouri	0	0	119	94	50	53	3	6
North Dakota	0	0	44	50	0	4	0	2
South Dakota	0	1	21	46	22	3	0	0
Nebraska	0	0	105	103	30	17	1	2
Kansas	0	0	189	319	75	105	3	3
South Atlantic States:								
Delaware	0	0	1	10	0	0	0	1
Maryland [1]	1	0	67	91	0	0	3	5
District of Columbia	0	0	25	49	0	0	0	1
West Virginia	0	0	24	56	9	54	8	14
North Carolina	2	0	46	34	19	113	2	2
South Carolina	0	1	8	14	3	4	3	10
Georgia	0	0	11	21	3	0	0	13
Florida	0	2	5	5	0	4	4	9

[1] Week ended Friday.
[2] Figures for 1929 are exclusive of Oklahoma City and Tulsa, and for 1928 are exclusive of Tulsa.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended February 23, 1929, and February 25, 1928—Continued

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Feb. 23, 1929	Week ended Feb. 25, 1928	Week ended Feb. 23, 1929	Week ended Feb. 25, 1928	Week ended Feb. 23, 1929	Week ended Feb. 25, 1928	Week ended Feb. 23, 1929	Week ended Feb. 25 1928
East South Central States:								
Kentucky	0	0	55	31	21	30	0	2
Tennessee	0	0	34	48	2	34	4	7
Alabama	4	3	26	7	4	7	13	25
Mississippi	1	1	11	22	2	4	2	6
West South Central States:								
Arkansas	0	0	15	41	5	7	6	10
Louisiana	1	1	43	10	1	22	4	4
Oklahoma [2]	0	4	30	61	53	100	2	18
Texas	1	0	53	51	51	12	5	1
Mountain States:								
Montana	0	0	30	15	39	12	0	0
Idaho	0	0	8	9	24	2	2	0
Wyoming	0	0	19	37	4	3	0	1
Colorado	1	0	17	117	17	12	0	0
New Mexico	0	2	9	13	0	2	2	0
Arizona	0	0	3	5	1	26	2	0
Utah [3]	0	0	5	9	3	23	0	0
Pacific States:								
Washington	1	1	26	56	80	83	0	2
Oregon	0	1	62	31	56	30	2	2
California	2	6	391	229	65	32	4	7

[2] Week ended Friday.
[3] Figures for 1929 are exclusive of Oklahoma City and Tulsa and for 1928 are exclusive of Tulsa.

SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State	Meningococcus meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Poliomyelitis	Scarlet fever	Smallpox	Typhoid fever
January, 1929										
Alabama	9	179	62, 612	55	319	13	0	126	56	14
Delaware	-------	5	367	-------	84	-------	0	10	0	1
Illinois	47	609	4, 608	8	1, 621	-------	8	1, 578	472	47
Iowa	16	47	285	-------	39	-------	2	544	113	-------
Louisiana	17	73	18, 238	34	152	25	3	102	31	33
Maryland	7	123	19, 341	-------	287	1	2	315	7	7
Michigan	-------	435	14, 912	-------	330	-------	3	1, 247	106	16
Missouri	57	248	27, 154	1	1, 000	1	0	353	109	14
New Hampshire	-------	6	1, 014	-------	-------	-------	0	93	0	0
New York	143	1, 190	-------	6	3, 795	-------	12	2, 109	2	69
North Carolina	2	186	-------	-------	114	-------	0	231	96	2
Ohio	44	312	10, 311	-------	2, 389	-------	4	1, 096	158	27
Oklahoma [1]	78	146	22, 486	22	32	3	0	142	169	9
Pennsylvania	43	859	-------	-------	6, 104	-------	2	2, 602	0	34
Rhode Island	2	63	2, 266	-------	428	-------	0	199	0	6
South Carolina	-------	303	22, 106	399	17	135	4	58	11	17
Wisconsin	31	70	10, 725	-------	903	-------	1	604	64	10

[1] Exclusive of Oklahoma City and Tulsa.

January, 1929

	Cases
Actinomycosis:	
Illinois	1
Botulism:	
Illinois	2
Chicken pox:	
Alabama	169
Delaware	22
Illinois	1,465
Iowa	167
Louisiana	65
Maryland	625
Michigan	1,020
Missouri	359
New York	3,069
North Carolina	550
Ohio	1,451
Oklahoma [1]	92
Pennsylvania	2,837
Rhode Island	59
South Carolina	204
Wisconsin	1,327
Dengue:	
South Carolina	4
Dysentery:	
Illinois	15
Louisiana	4
Maryland	3
New York	5
Ohio	1
Oklahoma [1]	11
German measles:	
Illinois	48
Iowa	2
Maryland	6
New York	176
North Carolina	14
Ohio	18
Pennsylvania	61
Rhode Island	1
Wisconsin	32
Hookworm disease:	
Louisiana	4
South Carolina	79
Impetigo contagiosa:	
Maryland	5
Lead poisoning:	
Illinois	10
Ohio	18
Lethargic encephalitis:	
Alabama	3
Illinois	8
Iowa	1
Louisiana	1
Michigan	9
New York	24
Ohio	10
Pennsylvania	6
Wisconsin	1
Mumps:	
Alabama	61
Delaware	3
Illinois	461
Iowa	292
Louisiana	5
Maryland	398
Mumps—Continued	**Cases**
Michigan	374
Missouri	78
New York	1,331
Ohio	262
Oklahoma [1]	35
Pennsylvania	1,587
Rhode Island	40
South Carolina	20
Wisconsin	315
Ophthalmia neonatorum:	
Illinois	35
Louisiana	1
Maryland	1
Missouri	1
New York	2
Ohio	73
Pennsylvania	11
South Carolina	8
Wisconsin	2
Paratyphoid fever:	
Illinois	1
New York	4
Ohio	1
Puerperal septicemia:	
Illinois	15
New York	9
Ohio	9
Pennsylvania	8
Rabies in animals:	
Illinois	11
Maryland	2
Missouri	4
New York	19
Rhode Island	5
South Carolina	23
Rabies in man:	
Pennsylvania	1
Scabies:	
Maryland	1
Septic sore throat:	
Illinois	10
Iowa	4
Maryland	9
Michigan	26
Missouri	104
New York	16
North Carolina	2
Ohio	57
Oklahoma [1]	4
Rhode Island	3
Tetanus:	
Illinois	7
Louisiana	1
Maryland	3
New York	2
Ohio	2
Pennsylvania	4
Trachoma:	
Illinois	6
Missouri	3
New York	1
Ohio	13
Oklahoma [1]	6
Pennsylvania	1
Wisconsin	1

[1] Exclusive of Oklahoma City and Tulsa.

Tularaemia:	Cases
Illinois	2
Louisiana	1
Maryland	1
Typhus fever:	
South Carolina	1
Undulant fever:	
Illinois	1
Iowa	2
New York	4
Ohio	2
Vincent's angina:	
Illinois	1
Iowa	2
Maryland	11
New York	113

Whooping cough:	Cases
Alabama	152
Delaware	26
Illinois	853
Iowa	120
Louisiana	22
Maryland	420
Michigan	629
Missouri	256
New York	1,337
North Carolina	352
Ohio	1,537
Oklahoma [1]	32
Pennsylvania	1,573
Rhode Island	43
South Carolina	185
Wisconsin	488

GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

The 97 cities reporting cases used in the following table are situated in all parts of the country and have an estimated aggregate population of more than 31,460,000. The estimated population of the 90 cities reporting deaths is more than 29,885,000. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

Weeks ended February 16, 1929, and February 18, 1928

	1929	1928	Estimated expectancy
Cases reported			
Diphtheria:			
46 States	1,568	2,048	----------
97 cities	735	1,050	1,012
Measles:			
45 States	9,525	16,909	----------
97 cities	2,453	5,257	----------
Meningococcus meningitis:			
45 States	251	94	----------
97 cities	143	42	----------
Poliomyelitis:			
46 States	17	34	----------
Scarlet fever:			
46 States	5,230	5,272	----------
97 cities	1,680	1,716	1,582
Smallpox:			
46 States	979	1,216	----------
97 cities	48	121	100
Typhoid fever:			
46 States	119	186	----------
97 cities	31	27	30
Deaths reported			
Influenza and pneumonia:			
90 cities	1,593	1,124	----------
Smallpox:			
90 cities	0	1	----------
Houston, Tex	0	1	----------

[1] Exclusive of Oklahoma City and Tulsa.

City reports for week ended February 16, 1929

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence the number of cases of the disease under consideration that may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding weeks of the preceding years. When the reports include several epidemics, or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during non-epidemic years.

If the reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1920 is included. In obtaining the estimated expectancy the figures are smoothed when necessary to avoid abrupt deviation from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population, July 1, 1928, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND									
Maine:									
Portland	78,600	3	1	0	2	1	28	0	3
New Hampshire:									
Concord	(1)	0	1	0	----	1	0	0	1
Manchester	85,700	0	1	1	----	6	0	0	1
Nashua	(1)	0	0	0	----	0	0	0	3
Vermont:									
Barre	(1)	0	0	0	----	0	0	0	0
Massachusetts:									
Boston	799,200	46	47	26	58	5	13	36	67
Fall River	134,300	1	4	4	6	6	15	2	0
Springfield	149,800	3	3	9	3	1	93	0	3
Worcester	197,600	20	3	2	6	0	11	2	3
Rhode Island:									
Pawtucket	73,100	1	1	0	----	0	12	0	7
Providence	286,300	0	11	6	----	2	36	0	17
Connecticut:									
Bridgeport	(1)	1	8	2	14	2	16	0	7
Hartford	172,300	6	9	7	12	2	12	2	13
New Haven	187,900	19	2	2	7	5	5	1	14
MIDDLE ATLANTIC									
New York:									
Buffalo	555,800	19	16	16	6	0	1	2	32
New York	6,017,500	210	229	198	243	61	54	103	353
Rochester	328,200	9	12	6	6	2	21	15	9
Syracuse	199,300	11	4	0	----	1	0	9	6
New Jersey:									
Camden	135,400	4	7	12	4	2	0	0	8
Newark	473,600	21	17	29	15	1	17	62	10
Trenton	139,000	0	3	3	2	0	3	0	8
Pennsylvania:									
Philadelphia	2,064,200	118	74	30	25	19	25	8	66
Pittsburgh	673,800	37	24	8	----	6	23	10	31
Reading	115,400	2	2	2	----	0	92	1	3
EAST NORTH CENTRAL									
Ohio:									
Cincinnati	413,700	10	11	1	5	9	0	0	18
Cleveland	1,010,300	64	33	23	36	8	265	14	45
Columbus	290,000	3	4	0	5	0	15	6	9
Toledo	313,200	12	7	1	5	5	4	8	11
Indiana:									
Fort Wayne	105,300	----	3	----	----	----	----	----	----
Indianapolis	382,100	76	8	3	----	4	60	8	21
South Bend	86,100	1	1	0	----	0	22	0	3
Terre Haute	73,500	0	1	0	----	0	11	0	4
Illinois:									
Chicago	3,157,400	88	84	104	43	12	184	12	92
Springfield	67,200	13	1	0	2	1	0	0	3
Michigan:									
Detroit	1,378,900	58	50	40	22	10	26	10	59
Flint	148,800	15	4	1	----	0	0	0	8
Grand Rapids	164,200	3	3	0	----	1	83	1	1

[1] No estimate of population made.

City reports for week ended February 16, 1929—Continued

Division, State, and city	Population, July 1, 1928, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
EAST NORTH CENTRAL—continued									
Wisconsin:									
Kenosha	56,500	3	1	0	-------	0	28	0	0
Milwaukee	544,200	85	20	5	7	6	316	17	18
Racine	74,400	11	2	0	-------	0	179	1	2
Superior	(1)	0	0	0	0	0	0	0	3
WEST NORTH CENTRAL									
Minnesota:									
Duluth	116,800	2	0	1	-------	3	2	20	2
Minneapolis	455,900	88	17	16	4	1	176	30	9
St. Paul	(1)	29	12	1	-------	2	53	26	10
Iowa:									
Davenport	(1)	0	1	0	-------	-------	0	0	-------
Des Moines	151,900	0	3	0	-------	-------	0	0	-------
Sioux City	80,000	9	2	0	-------	-------	1	1	-------
Waterloo	37,100	1	1	1	-------	-------	2	26	-------
Missouri:									
Kansas City	391,000	23	7	3	-------	1	231	6	17
St. Joseph	78,500	3	1	0	-------	0	25	2	7
St. Louis	848,100	22	51	45	11	3	16	10	-------
North Dakota:									
Fargo	(1)	1	0	0	-------	0	1	0	1
Grand Forks	(1)	0	0	0	-------	-------	0	0	-------
South Dakota:									
Aberdeen	(1)	2	0	0	-------	-------	23	0	-------
Sioux Falls	(1)	0	0	0	-------	-------	192	0	-------
Nebraska:									
Lincoln	71,100	2	1	1	-------	0	0	0	0
Omaha	222,800	2	3	11	-------	0	1	0	9
Kansas:									
Topeka	62,800	19	2	0	-------	1	-------	0	1
Wichita	99,300	20	4	0	-------	0	3	27	4
SOUTH ATLANTIC									
Delaware:									
Wilmington	128,500	1	3	1	-------	2	23	0	11
Maryland:									
Baltimore	830,400	98	30	19	213	13	3	72	51
Cumberland	(1)	1	0	0	2	0	3	3	2
Frederick	(1)	0	1	0	-------	0	0	0	0
District of Columbia:									
Washington	552,000	43	20	10	25	4	3	0	18
Virginia:									
Lynchburg	38,600	2	1	0	-------	0	0	20	1
Richmond	194,400	2	4	1	5	4	3	1	8
Roanoke	64,600	6	1	1	-------	1	1	2	0
West Virginia:									
Charleston	55,200	1	0	0	-------	1	14	0	5
Wheeling	(1)	1	1	0	8	2	21	0	4
North Carolina:									
Raleigh	(1)	7	1	0	-------	0	0	0	2
Wilmington	39,100	2	0	0	-------	1	0	0	3
Winston-Salem	80,000	17	1	2	-------	0	0	0	0
South Carolina:									
Charleston	75,900	0	0	1	21	0	0	0	1
Columbia[2]	50,600	11	1	0	-------	0	0	3	8
Georgia:									
Atlanta	255,100	1	3	3	42	0	1	1	17
Brunswick	(1)	0	1	0	-------	0	0	1	0
Savannah	99,900	0	0	0	10	4	0	0	3
Florida:									
Miami	156,700	15	1	1	-------	0	8	1	2
St. Petersburg	53,300	-------	0	-------	-------	0	-------	-------	1
Tampa	113,400	6	2	1	-------	0	0	0	0

[1] No estimate of population made.

[2] Figures for two weeks.

City reports for week ended February 16, 1929—Continued

Division, State, and city	Population, July 1, 1928, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
EAST SOUTH CENTRAL									
Kentucky:									
Covington	59,000	0	1	0	2	1	0	0	3
Louisville	329,400	1	4	2	10	1	1	1	15
Tennessee:									
Memphis	190,200	8	3	4	255	6	1	0	8
Nashville	139,600	0	1	0	-------	6	0	0	3
Alabama:									
Birmingham	222,400	5	4	3	37	14	2	1	6
Mobile	69,600	0	1	1	9	3	2	0	2
Montgomery	63,100	1	1	4	14	-------	1	0	-------
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith	(1)	0	0	0	-------	-------	0	1	-------
Little Rock	79,200	0	0	1	-------	2	10	1	8
Louisiana:									
New Orleans	429,400	2	12	16	12	15	1	0	11
Shreveport	81,300	0	1	0	-------	1	0	0	4
Oklahoma:									
Oklahoma City	(1)	2	2	3	23	3	4	0	8
Tulsa	170,500	27	1	2	-------	-------	0	4	-------
Texas:									
Dallas	217,600	5	7	5	8	9	0	0	7
Fort Worth	170,600	6	3	13	2	3	6	1	3
Galveston	50,600	0	2	0	-------	0	0	0	2
Houston	(1)	0	4	3	-------	2	2	0	5
San Antonio	218,100	0	2	5	-------	10	0	0	17
MOUNTAIN									
Montana:									
Billings	(1)	2	0	1	-------	0	1	2	2
Great Falls	(1)	3	1	0	-------	0	78	0	2
Helena	(1)	1	0	2	-------	0	11	0	1
Missoula	(1)	1	1	0	-------	0	23	0	0
Idaho:									
Boise	(1)	1	0	0	-------	0	0	0	0
Colorado:									
Denver	294,200	10	12	2	10	10	3	19	16
Pueblo	44,200	9	2	0	-------	0	1	1	4
New Mexico:									
Albuquerque	(1)	0	0	0	1	2	1	0	2
Utah:									
Salt Lake City	138,000	37	3	0	-------	0	0	77	3
Nevada:									
Reno	(1)	0	0	0	-------	0	0	0	0
PACIFIC									
Washington:									
Seattle	383,200	42	6	1	-------	-------	2	9	-------
Spokane	109,100	8	3	3	-------	-------	50	0	-------
Tacoma	110,500	0	1	0	-------	2	1	9	3
Oregon:									
Portland	(1)	15	7	4	8	0	79	5	12
Salem	(1)	2	0	0	2	0	8	0	0
California:									
Los Angeles	(1)	58	41	18	80	3	13	29	18
Sacramento	75,700	15	2	4	7	2	0	10	10
San Francisco	585,300	49	21	6	18	6	2	9	8

[1] No estimate of population made.

City reports for week ended February 16, 1929—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuberculosis, deaths reported	Typhoid fever			Whooping cough, cases reported	Deaths, all causes
	Cases, estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported	Deaths reported		Cases, estimated expectancy	Cases reported	Deaths reported		
NEW ENGLAND											
Maine:											
Portland	3	11	0	0	0	1	0	1	0	0	19
New Hampshire:											
Concord	0	0	0	0	0	1	0	0	0	0	10
Manchester	3	3	0	0	0	0	0	0	0	0	21
Nashua	1	0	0	0	0	1	0	0	0	0	10
Vermont:											
Barre	0	0	0	0	0	0	0	0	0	0	----
Massachusetts:											
Boston	83	82	0	0	0	18	1	0	0	33	305
Fall River	4	2	0	0	0	2	0	0	0	2	31
Springfield	10	10	0	0	0	2	0	0	0	0	35
Worcester	10	14	0	0	0	4	0	1	0	17	71
Rhode Island:											
Pawtucket	2	5	0	0	0	2	0	0	0	1	30
Providence	12	21	0	0	0	1	0	0	0	1	95
Connecticut:											
Bridgeport	14	4	0	0	0	2	0	0	0	2	43
Hartford	6	12	0	0	0	6	0	0	0	1	65
New Haven	11	5	0	0	0	2	0	0	0	4	53
MIDDLE ATLANTIC											
New York:											
Buffalo	28	30	0	0	0	9	1	0	0	31	151
New York	343	277	0	0	0	97	7	8	0	46	1,829
Rochester	12	2	0	0	0	2	0	0	0	17	86
Syracuse	17	10	0	0	0	1	0	0	0	21	56
New Jersey:											
Camden	7	8	0	0	0	2	1	0	0	5	39
Newark	38	16	0	0	0	7	1	0	0	13	107
Trenton	6	6	0	0	0	3	0	0	0	0	42
Pennsylvania:											
Philadelphia	102	76	0	0	0	38	2	0	0	68	560
Pittsburgh	40	25	0	0	0	9	0	1	1	15	181
Reading	4	11	0	0	0	0	0	0	0	4	29
EAST NORTH CENTRAL											
Ohio:											
Cincinnati	21	40	1	5	0	10	0	1	0	27	169
Cleveland	53	26	0	0	0	19	1	0	0	54	244
Columbus	12	1	1	0	0	9	0	0	0	10	101
Toledo	13	17	0	3	0	7	0	1	0	106	97
Indiana:											
Fort Wayne	6	----	0	----	----	----	0	----	----	----	----
Indianapolis	11	38	12	2	0	1	0	0	0	23	123
South Bend	3	6	1	0	0	4	0	0	0	2	21
Terre Haute	3	2	0	1	0	1	0	0	0	0	17
Illinois:											
Chicago	145	148	3	4	0	61	3	2	1	52	821
Springfield	3	11	0	1	0	0	1	0	0	1	30
Michigan:											
Detroit	103	100	3	1	0	23	1	0	0	113	365
Flint	10	14	1	4	0	2	1	0	0	6	30
Grand Rapids	11	15	0	4	0	1	0	0	0	21	21
Wisconsin:											
Kenosha	2	0	0	0	0	0	0	0	0	12	----
Milwaukee	35	38	1	1	0	6	0	0	0	110	131
Racine	6	1	0	0	0	1	0	0	0	2	15
Superior	4	0	0	0	0	0	0	0	0	0	11
WEST NORTH CENTRAL											
Minnesota:											
Duluth	8	16	1	0	0	2	0	0	0	3	24
Minneapolis	59	21	2	0	0	1	0	0	0	34	112
St. Paul	37	23	2	0	0	1	1	0	0	32	68
Iowa:											
Davenport	1	2	2	0	----	----	0	0	----	1	----
Des Moines	7	31	2	0	----	----	0	0	----	0	36
Sioux City	2	0	0	0	----	----	0	0	----	3	----
Waterloo	2	61	1	0	----	----	0	4	----	12	----

City reports for week ended February 16, 1929—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuberculosis, deaths reported	Typhoid fever			Whooping cough, cases reported	Deaths, all causes
	Cases, estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported	Deaths reported		Cases, estimated expectancy	Cases reported	Deaths reported		
WEST NORTH CENTRAL—continued											
Missouri:											
Kansas City	14	13	4	0	0	4	0	1	1	5	111
St. Joseph	3	2	0	0	0	1	0	0	0	5	41
St. Louis	47	28	2	0	0	13	0	1	0	30	267
North Dakota:											
Fargo	2	2	0	0	0	0	0	0	0	1	4
Grand Forks	1	3	0	0	----	----	0	0	----	0	----
South Dakota:											
Aberdeen	1	1	0	1	----	----	0	0	----	0	----
Sioux Falls	3	21	0	0	----	----	0	0	----	0	7
Nebraska:											
Lincoln	2	12	0	0	0	0	0	0	0	0	----
Omaha	6	6	5	0	0	1	0	0	0	5	64
Kansas:											
Topeka	2	4	0	0	0	0	0	0	0	6	20
Wichita	4	11	1	0	0	0	0	0	0	3	25
SOUTH ATLANTIC											
Delaware:											
Wilmington	5	3	0	0	0	1	0	1	0	0	34
Maryland:											
Baltimore	39	24	0	0	0	17	2	2	2	75	285
Cumberland	1	1	0	0	0	0	0	0	0	1	13
Frederick	2	0	0	0	0	0	0	0	0	1	5
District of Columbia:											
Washington	25	28	1	0	0	16	1	0	0	29	185
Virginia:											
Lynchburg	0	2	0	0	0	4	0	0	0	0	22
Richmond	4	3	0	0	0	2	0	0	0	7	58
Roanoke	1	2	0	0	0	1	0	0	0	0	20
West Virginia:											
Charleston	1	2	0	1	0	1	0	0	0	6	----
Wheeling	2	1	0	0	0	0	0	0	0	2	22
North Carolina:											
Raleigh	1	1	0	0	0	1	0	0	0	4	11
Wilmington	0	0	0	0	0	0	0	0	0	1	19
Winston-Salem	1	3	1	0	0	0	0	0	0	12	23
South Carolina:											
Charleston	1	1	0	0	0	0	0	0	0	0	16
Columbia [1]	0	2	0	0	0	1	0	0	1	2	43
Georgia:											
Atlanta	5	10	4	0	0	4	0	0	0	1	98
Brunswick	0	0	0	0	0	0	0	0	0	0	2
Savannah	1	2	0	0	0	2	0	0	0	2	37
Florida:											
Miami	1	3	0	0	0	0	0	1	0	3	25
St. Petersburg	0	----	0	----	0	1	0	----	0	----	18
Tampa	0	0	0	0	0	0	1	0	0	7	----
EAST SOUTH CENTRAL											
Kentucky:											
Covington	2	8	0	0	0	0	0	0	0	0	18
Louisville	7	40	1	0	0	6	1	0	0	8	106
Tennessee:											
Memphis	6	12	3	0	0	6	0	1	0	0	83
Nashville	4	2	0	0	0	6	0	0	0	3	65
Alabama:											
Birmingham	2	7	6	0	0	4	0	1	0	2	85
Mobile	0	3	1	0	0	1	0	0	0	0	28
Montgomery	1	6	1	0	----	----	0	0	----	0	----
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith	1	1	0	0	----	----	0	0	----	0	----
Little Rock	2	11	0	0	0	1	0	0	0	1	----
Louisiana:											
New Orleans	8	34	0	0	0	13	2	2	0	0	170
Shreveport	1	0	0	0	0	1	0	0	0	2	37

[1] Figures for two weeks.

City reports for week ended February 16, 1929—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuberculosis, deaths reported	Typhoid fever			Whooping cough, cases reported	Deaths, all causes
	Cases, estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported	Deaths reported		Cases, estimated expectancy	Cases reported	Deaths reported		
WEST SOUTH CENTRAL—con.											
Oklahoma:											
Oklahoma City	3	1	3	2	0	3	0	0	0	0	44
Tulsa	2	4	0	1	----	----	0	0	----	3	----
Texas:											
Dallas	4	11	3	5	0	7	0	1	1	0	81
Fort Worth	1	13	2	21	0	3	0	0	0	0	37
Galveston	0	1	0	0	0	1	0	0	0	0	14
Houston	2	6	3	1	0	5	0	0	0	0	68
San Antonio	2	3	0	0	0	5	0	0	0	0	87
MOUNTAIN											
Montana:											
Billings	0	0	1	0	0	1	0	0	0	0	12
Great Falls	2	3	1	0	0	0	0	0	0	4	12
Helena	1	0	0	0	0	0	0	0	0	0	5
Missoula	0	0	0	2	0	0	0	0	0	0	7
Idaho:											
Boise	1	0	1	2	0	0	0	0	0	1	11
Colorado:											
Denver	15	3	2	0	0	10	0	0	0	8	104
Pueblo	1	0	0	0	0	1	0	0	0	0	13
New Mexico:											
Albuquerque	2	1	0	0	0	3	0	0	0	33	16
Utah:											
Salt Lake City	3	4	2	4	0	1	0	0	0	3	41
Nevada:											
Reno	0	0	1	0	0	0	0	0	0	0	5
PACIFIC											
Washington:											
Seattle	12	7	3	0	----	----	0	1	----	33	----
Spokane	6	3	9	2	----	----	0	0	----	0	----
Tacoma	2	3	3	7	0	0	0	0	0	2	25
Oregon:											
Portland	7	13	11	31	0	4	0	0	0	0	92
Salem	0	1	1	0	0	0	0	0	0	0	----
California:											
Los Angeles	35	57	8	1	0	23	1	2	0	27	242
Sacramento	2	25	1	0	0	4	1	0	0	3	42
San Francisco	18	41	4	0	0	17	1	0	0	10	171

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
NEW ENGLAND									
Rhode Island:									
Providence	0	1	0	0	0	0	0	0	0
Bridgeport	1	1	1	1	0	0	0	0	0
MIDDLE ATLANTIC									
New York:									
New York City	37	25	6	2	0	0	1	0	0
Rochester	0	1	0	0	0	0	0	0	0
New Jersey:									
Newark	1	0	0	0	0	0		0	0
Pennsylvania:									
Philadelphia	10	4	1	0	0	1	0	0	0
Pittsburgh	2	1	1	1	0	0	0	0	0

City reports for week ended February 16, 1929—Continued

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
EAST NORTH CENTRAL									
Ohio:									
Cleveland	5	3	0	0	0	0	0	0	0
Toledo	1	1	0	0	0	0	0	0	0
Indiana:									
Indianapolis	1	1	0	0	0	0	0	0	0
Illinois:									
Chicago	8	6	2	0	0	0	1	0	0
Springfield	1	1	0	0	0	0	0	0	0
Michigan:									
Detroit	19	5	1	0	0	0	1	0	0
Wisconsin:									
Milwaukee	2	1	0	0	0	0	1	0	0
WEST NORTH CENTRAL									
Minnesota:									
Duluth	1	1	0	0	0	0	0	0	0
Minneapolis	0	0	0	1	0	0	0	0	0
St. Paul	2	1	0	0	0	0	0	0	0
Iowa:									
Des Moines	0	0	1	0	0	0	0	0	0
Missouri:									
Kansas City	5	3	0	0	1	1	0	0	0
St. Louis	6	2	0	0	0	0	0	0	0
North Dakota:									
Fargo	1	0	0	0	0	0	0	0	0
Nebraska:									
Lincoln	1	0	0	0	0	0	0	0	0
SOUTH ATLANTIC [1]									
Maryland:									
Baltimore	0	0	2	0	0	0	0	0	0
Virginia:									
Lynchburg	0	0	0	0	0	1	0	0	0
North Carolina:									
Wilmington	0	0	0	0	0	2	0	0	0
EAST SOUTH CENTRAL									
Tennessee:									
Nashville	0	1	0	0	0	0	0	0	0
Alabama:									
Birmingham	3	0	1	0	0	0	0	0	0
WEST SOUTH CENTRAL									
Louisiana:									
New Orleans [1]	7	2	0	0	0	0	0	0	0
Shreveport	0	0	0	1	0	0	0	0	0
Oklahoma:									
Tulsa	2	0	0	0	0	0	0	0	0
Texas:									
Dallas	1	1	0	0	0	0	0	0	0
Galveston	1	0	0	0	0	0	0	0	0
Houston	0	0	0	0	0	1	0	0	0
MOUNTAIN									
Colorado:									
Denver	3	2	0	0	0	0	0	0	0
New Mexico:									
Albuquerque	1	0	0	0	0	0	0	0	0
Utah:									
Salt Lake City	15	8	0	0	0	0	0	0	0
PACIFIC									
Oregon:									
Portland	1	2	0	0	0	0	0	0	0
California:									
Los Angeles	3	1	0	0	0	0	0	0	0
Sacramento	2	0	0	0	0	0	0	0	0
San Francisco	5	6	0	0	0	0	1	0	0

[1] Typhus fever: 3 cases; 2 cases at Savannah, Ga., and 1 case at New Orleans, La.

The following table gives the rates per 100,000 population for 98 cities for the 5-week period ended February 16, 1929, compared with those for a like period ended February 18, 1928. The population figures used in computing the rates are approximate estimates, authoritative figures for many of the cities not being available. The 98 cities reporting cases had estimated aggregate populations of more than 31,000,000. The 91 cities reporting deaths had nearly 30,000,000 estimated population. The number of cities included in each group and the estimated aggregate populations are shown in a separate table below.

Summary of weekly reports from cities, January 13 to February 16, 1929—Annual rates per 100,000 population compared with rates for the corresponding period of 1928 [1]

DIPHTHERIA CASE RATES

	Week ended—									
	Jan. 19, 1929	Jan. 21, 1928	Jan. 26, 1929	Jan. 28, 1928	Feb. 2, 1929	Feb. 4, 1928	Feb. 9, 1929	Feb. 11, 1928	Feb. 16, 1929	Feb. 18, 1928
98 cities	[2] 132	193	125	194	110	194	[3] 119	170	[4] 122	177
New England	179	168	201	172	109	193	118	136	131	172
Middle Atlantic	158	253	136	252	133	279	141	231	147	235
East North Central	[2] 107	192	122	186	106	145	[3] 114	174	[4] 114	169
West North Central	146	139	115	131	90	113	[5] 159	100	150	125
South Atlantic	99	155	79	149	107	180	[7] 69	121	73	155
East South Central	170	105	136	84	68	77	81	63	81	63
West South Central	79	154	119	166	99	154	119	130	119	126
Mountain	61	168	52	124	70	105	[8] 52	44	44	186
Pacific	107	125	95	161	67	156	70	133	80	82

MEASLES CASE RATES

98 cities	[2] 218	611	262	571	275	718	[3] 376	790	[4] 407	885
New England	706	1,249	672	1,078	518	1,508	566	1,614	545	1,638
Middle Atlantic	70	480	86	484	93	620	129	649	114	702
East North Central	[2] 302	325	380	368	417	358	[5] 560	440	[4] 768	530
West North Central	423	260	627	139	769	223	[6] 1,175	217	982	241
South Atlantic	84	1,624	84	1,469	103	1,823	[7] 136	2,034	135	2,275
East South Central	34	1,845	27	1,564	7	1,459	14	1,312	41	1,543
West South Central	12	567	36	507	36	928	36	1,321	51	1,925
Mountain	853	97	871	89	697	115	[8] 2,675	186	1,019	97
Pacific	57	532	77	435	102	709	140	719	170	693

SCARLET FEVER CASE RATES

98 cities	[2] 225	268	230	278	233	270	[3] 249	300	[4] 278	290
New England	296	508	319	372	305	359	308	432	376	441
Middle Atlantic	183	269	217	289	190	296	186	334	222	331
East North Central	[2] 258	286	262	301	280	289	[5] 320	310	[4] 342	280
West North Central	248	225	296	274	306	248	[6] 316	291	360	266
South Atlantic	122	210	114	191	131	201	[7] 147	224	159	222
East South Central	231	91	231	112	156	70	244	77	258	98
West South Central	190	89	103	130	150	134	241	101	265	118
Mountain	183	266	104	301	61	381	[8] 174	540	87	346
Pacific	389	241	267	297	362	217	314	192	339	230

[1] The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1929 and 1928, respectively.
[2] South Bend, Ind., not included.
[3] Racine, Wis., St. Paul, Minn., Fargo, N. Dak., Columbia, S. C., and Denver, Colo., not included.
[4] Fort Wayne, Ind., not included.
[5] Racine, Wis., not included.
[6] St. Paul, Minn., not included.
[7] Columbia, S. C., not included.
[8] Denver, Colo., not included.

Summary of weekly reports from cities, January 13 to February 16, 1929—Annual rates per 100,000 population compared with rates for the corresponding period of 1928—Continued

SMALLPOX CASE RATES

	Week ended—									
	Jan. 19, 1929	Jan. 21, 1928	Jan. 26, 1929	Jan. 28, 1928	Feb. 2, 1929	Feb. 4, 1928	Feb. 9, 1929	Feb. 11, 1928	Feb. 16, 1929	Feb. 18, 1928
98 cities	[2] 7	22	8	23	7	21	[5] 6	22	[4] 8	20
New England	0	0	0	0	0	0	0	0	0	0
Middle Atlantic	0	0	0	0	0	0	0	0	0	0
East North Central	[2] 6	9	8	12	10	9	[5] 8	14	[4] 15	12
West North Central	13	121	2	121	8	117	[6] 2	110	0	102
South Atlantic	6	15	7	15	11	19	[7] 0	23	2	27
East South Central	7	70	14	28	7	28	0	21	0	35
West South Central	47	4	47	20	28	12	51	16	24	20
Mountain	17	106	61	133	78	115	[8] 52	44	70	168
Pacific	17	64	20	59	7	59	7	60	25	18

TYPHOID FEVER CASE RATES

98 cities	[2] 4	6	4	8	4	7	[5] 5	7	[4] 5	5
New England	5	9	2	21	2	14	2	9	5	5
Middle Atlantic	4	3	2	5	4	5	4	6	4	3
East North Central	[2] 3	6	4	5	1	3	[5] 3	6	[4] 2	3
West North Central	2	2	4	8	6	2	[6] 0	6	12	4
South Atlantic	6	6	2	8	7	6	[7] 6	10	6	8
East South Central	20	42	7	28	0	21	7	7	14	14
West South Central	8	12	24	41	8	41	28	41	12	12
Mountain	0	9	0	0	0	9	[8] 17	0	0	0
Pacific	2	8	10	0	7	10	7	0	7	8

INFLUENZA DEATH RATES

91 cities	[2] 183	26	131	20	85	20	[5] 58	18	[4] 54	23
New England	143	18	206	7	143	9	90	7	57	11
Middle Atlantic	152	19	134	16	82	14	58	15	44	18
East North Central	[2] 148	17	70	12	48	13	[5] 28	10	[4] 37	12
West North Central	123	28	69	15	57	15	[6] 50	6	33	9
South Atlantic	289	29	182	11	114	25	[7] 94	31	60	38
East South Central	940	153	615	100	296	100	126	54	222	54
West South Central	333	67	207	79	174	46	106	58	158	92
Mountain	157	71	70	80	35	53	[8] 52	53	87	71
Pacific	79	17	46	20	43	34	43	20	43	27

PNEUMONIA DEATH RATES

91 cities	[2] 366	182	328	164	274	155	[5] 230	172	[4] 224	177
New England	446	156	468	126	511	126	387	149	305	170
Middle Atlantic	446	193	454	183	360	178	298	201	254	196
East North Central	[2] 280	137	184	121	170	129	[5] 132	114	[4] 185	137
West North Central	240	205	189	147	180	73	[6] 172	159	180	141
South Atlantic	474	230	388	214	268	207	[7] 237	230	251	216
East South Central	452	207	355	169	207	146	193	222	163	192
West South Central	398	312	308	271	199	212	199	204	219	283
Mountain	200	186	157	177	148	204	[8] 208	151	235	168
Pacific	125	142	128	145	118	128	134	182	128	172

[2] South Bend, Ind., not included.
[5] Racine, Wis., St. Paul, Minn., Fargo, N. Dak., Columbia, S. C., and Denver, Colo., not included.
[4] Fort Wayne, Ind., not included.
[5] Racine, Wis., not included.
[6] St. Paul, Minn., not included.
[7] Columbia, S. C., not included.
[8] Denver, Colo., not included.

Number of cities included in summary of weekly reports, and aggregate population of cities of each group, approximated as of July 1, 1929 and 1928, respectively

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1929	1928	1929	1928
Total	98	91	31,568,400	31,052,700	29,995,100	29,498,600
New England	12	12	2,305,100	2,273,900	2,305,100	2,273,900
Middle Atlantic	10	10	10,809,700	10,702,200	10,809,700	10,702,200
East North Central	16	16	8,181,900	8,001,300	8,181,900	8,001,300
West North Central	12	9	2,712,100	2,673,300	1,736,900	1,708,100
South Atlantic	19	19	2,783,200	2,732,900	2,783,200	2,732,900
East South Central	6	5	767,900	745,500	704,200	682,400
West South Central	8	7	1,319,100	1,289,900	1,285,000	1,256,400
Mountain	9	9	598,800	590,200	598,800	590,200
Pacific	6	4	2,090,600	2,043,500	1,590,300	1,551,200

FOREIGN AND INSULAR

INFLUENZA IN FOREIGN COUNTRIES

The following data relative to influenza in foreign countries were taken from current publications of the health section of the League of Nations:

Germany.—A large sickness insurance society in Berlin reported a decreased prevalence of influenza, 3,027 cases having been reported from February 9 to February 15, 1929, as compared with 3,381 cases from February 2 to February 8.

In Hamburg the epidemic was of a mild type, showing a case mortality rate of 0.9 per 1,000 for the three weeks ended February 2.

On February 12, 1929, the epidemic at Breslau and Leipzig had decreased, while at Bremen, Hamburg, and Frankfort an increase was reported.

Reports from western Germany showed a spread of a mild type of the disease during the first days of February. Influenza had had little effect on the death rates of towns on the Rhine and in southern Germany.

England and Wales.—Reports for the week ended February 2, 1929, from 107 large towns show 652 deaths from influenza, as compared to 321 and 179 during the two preceding weeks.

The epidemic first attacked the industrial areas of the northwest, and various towns in the south. The midlands and the northeast were not seriously affected by the epidemic up to February 2.

Netherlands.—On February 12 influenza was reported to be epidemic in the Netherlands, although the mortality was slight. In Amsterdam the number of sick among municipal employees had doubled during the preceding four weeks. Cases of influenza had also increased at The Hague, although the disease was reported to be less widespread there.

Poland.—The death rate of Warsaw was 19.3 per 1,000 population during the week ended January 26, as compared with 15.5 during the preceding week. Eighteen deaths were attributed to influenza.

Norway.—During the week ended February 2, 16 deaths from influenza were reported in Oslo and 1 in Bergen, the general death rates for those towns being 19.1 and 14.2, respectively.

Italy.—On February 12, 1929, a mild type of influenza was reported to be present in Italy.

Irish Free State.—The general death rate of Dublin was 25.1 per 1,000 for the week ended February 2, with 18 influenza deaths, as compared with a death rate of 23.6 and 6 influenza deaths during the preceding week.

Northern Ireland.—The death rate of Belfast decreased during the week ended February 9 to 39.4, as compared with 52.8 during the preceding week. Influenza deaths numbered 52, as compared with 105 during the preceding week.

Scotland.—Although the death rates of Edinburgh and Dundee increased slightly during the week ended February 9, the rate for the aggregate of 16 Scottish towns decreased from 37.9 to 28.

Denmark.—On February 8 influenza was reported to be decreasing in Copenhagen and neighborhood, although a slight increase was still reported in other provinces.

Union of Socialist Soviet Republics.—On February 8, 1929, there was reported to be no increase of influenza. At Moscow, 30,875 cases were reported in January, 1929, as compared with 36,056 in January, 1928. The disease is of mild type.

Latvia.—On February 9, 1929, influenza was reported to be widespread in Latvia. It was more prevalent in the western than in the eastern part of the country. The disease was of mild type, only 12 deaths having occurred at Riga out of a population of 340,000.

Czechoslovakia.—During the first half of January, 1929, 640 cases of influenza were reported in Czechoslovakia. Since then a marked increase was reported, especially at Prague, where 3,905 cases and 24 deaths occurred during the week ended February 2.

Finland.—During the first half of January, 5,084 cases of influenza were reported in Finland, as compared with 3,237 during the last half of December. The highest numbers of cases were reported in Helsingfors and Abo, and in the rural part of the Province of Viborg.

Spain.—On February 16 reports indicated that influenza was widespread in Spain, although of a relatively mild type. In many provinces the epidemic seemed to have passed its maximum during the first half of February. The total mortality of Madrid during the week ended February 6 was 28.4 per 1,000 population, and of Malaga, 21 per 1,000.

France.—The total mortality of Paris during the three 10-day periods of January was 1,475, 1,608, and 2,427, respectively. Of this total of 5,510 deaths, 129 were attributed to influenza, 312 to pneumonia, and 921 to other pulmonary diseases.

Oceania.—On February 2, 1929, it was reported that practically the entire population of Rotuma (situated between the Fiji and the Ellice Islands) had been attacked by influenza, the disease having caused 31 deaths since the beginning of December.

Iceland.—It was reported, February 2, 1929, that a new wave of influenza was present in Iceland. During the week ended February 2, 168 cases were reported at Reykjavik and 482 during the week ended February 9. The disease was of mild type and no increase of the general death rate had been observed.

ANGOLA

Communicable diseases—November, 1928.—During the month of November, 1928, cases of communicable diseases were reported in Angola as follows:

Disease	Cases	Disease	Cases
Ancylostomiasis	23	Puerperal septicemia	2
Bilharzia	70	Relapsing fever	12
Cerebrospinal meningitis	3	Scurvy	2
Chicken pox (including alastrim)	31	Smallpox	1
Dysentery	59	Tetanus	1
Influenza	361	Trypanosomiasis	259
Leprosy	8	Tuberculosis	34
Malaria	873	Typhoid fever	4
Malarial hemoglobinuria	19	Venereal disease	420
Measles	68	Whooping cough	55
Mumps	8	Yaws	309
Pneumonia and broncho-pneumonia	52		

CANADA

Provinces—Communicable diseases—Week ended February 9, 1929.—The Department of Pensions and National Health reports cases of certain communicable diseases from eight Provinces of Canada for the week ended February 9, 1929, as follows:

Disease	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Totals
Cerebrospinal fever	1	1	1	2					5
Influenza	141		18	114	4	6		49	332
Lethargic encephalitis				2					2
Smallpox			5	47	6	17		12	87
Typhoid fever			2	8	2	1	4		17

Quebec—Communicable diseases—Week ended February 9, 1929.—The Bureau of Health of the Province of Quebec reports cases of certain communicable diseases for the week ended February 9, 1929, as follows:

Disease	Cases	Disease	Cases
Cerebrospinal meningitis	1	Ophthalmia neonatorum	2
Chicken pox	51	Scarlet fever	96
Diphtheria	56	Smallpox	5
German measles	8	Tuberculosis	68
Influenza	18	Typhoid fever	2
Measles	34	Whooping cough	18

MEXICO

Tampico—Communicable diseases—January, 1929.—During the month of January, 1929, communicable diseases were reported from Tampico, Mexico, as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Diphtheria	6	2	Smallpox	1	
Enteritis (various)		46	Tuberculosis	78	38
Influenza	38	17	Typhoid fever	2	1
Malaria	39	9	Whooping cough	2	3
Measles	18	3			

NIGERIA

Lagos—Plague.—During the year 1928, 508 deaths from plague were reported in Lagos, Nigeria, as compared with 151 in 1927 and 477 in 1926. Preventive measures, including rat destruction, inoculation, and port health work, are being intensively carried on.

VIRGIN ISLANDS

Communicable diseases—January, 1929.—During the month of January, 1929, cases of certain communicable diseases were reported from the Virgin Islands as follows:

St. Thomas and St. John:	Cases
Dengue	1
Gonorrhea	4
Influenza	2
Malaria	1
Pellagra	2
Syphilis	4
Tuberculosis	1
Uncinariasis	2

St. Croix:	Cases
Filariasis	1
Gonorrhea	3
Schistosomiasis	1
Syphilis	12
Uncinariasis	2

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

From medical officers of the Public Health Service, American consuls, health section of the League of Nations, and other sources. The reports contained in the following table must not be considered as complete or final as regards either the list of countries included or the figures for the particular countries for which reports are given:

CHOLERA

[C indicates cases; D, deaths; P, present]

Place		Week ended— Aug. 26–Sept. 22, 1928	Sept. 23–Oct. 20, 1928	Oct. 21–Nov. 17, 1928	Nov. 24, 1928	December, 1928					January, 1929				February, 1929		
						1	8	15	22	29	5	12	19	26	2	9	16
Ceylon	C									5	2						
	D									2	2						
Colombo	C											3	1	1			
	D											1					
Ingiriya Province	C			1													
	D			1													
China:																	
Canton	C	1		2					2			1					
	D	1							1								
Kwantung—Dairen	C	3															
	D	1															
Shanghai	C	2															
	D	3	3														
India	C	32,287	17,028	20,937	5,581	6,932	5,661	5,354									
	D	17,731	10,187	12,490	3,369	4,505	3,706	3,370									
Bassein	D												1	4	1		
Bombay	C	6	15	1	3		1										
	D	4	7	1	3		1										
Calcutta	C	68	41	219	87	61	52	47	28	12	33						
	D	40	39	140	53	39	36	27	15	13	13	20	13	30	23		
Madras	C	149	97	203	32	32	11	28	6		6	4	1				
	D	88	73	115	15	15	6	6	4	2	8	3		1	4		
Madras Presidency	C						1										
	D						1										
Moulmein	D						1										
Negapatam	C	1					1			3	1	2	8	9			
	D	7	1		1												
Rangoon	C	2	1		4	1											
	D	2	2		3	2					1		1	3	1		
Tuticorin	C	1	1			1	1		33	39	27	16	31	31	7		
	D			1					19	18	15	9	15	21	5		
Vizagapatam	D	5															

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

CHOLERA—Continued

[C indicates cases; D, deaths; P, present]

Place		Aug. 26–Sept. 22, 1928	Sept. 23–Oct. 20, 1928	Oct. 21–Nov. 17, 1928	Week ended— Nov. 24, 1928	December, 1928 1	8	15	22	29	January, 1929 5	12	19	26	February, 1929 2	9	16
India (French):																	
Chandernagor	C	3	16	43	18	4	3		2	1		1					
	D	2	7	34	6	3	1		2	1		1					
Karikal	C	41	9	111	6		1		4	9	20	21	40	61			
	D	26	8	85	3		1		4	8	13	16	34	46			
Pondicherry Province	C	132	31	6	13	16	8		5	25	37	25	27	58			
	D	72	19	5	9	11	7	3	3	12	21	19	21	45			
Indo-China (see also table below):																	
Pnompenh	C	3		1				1		1	3	2	1				
	D	2		1				1		1							
Saigon	C	2		1						3	1	2	3	1	2		
	D	1								1	1	2	1	1	1		
Japan: Osaka	C		1														
Kwangchow-Wan (see table below).																	
Siam	C	21	14	47	26	20	29	29	35	45	84	60	59	72	29		
	D	14	10	27	15	11	17	25	13	33	53	51	50	38	23		
Anthoang	C								4				1				
	D								1				1				
Ayudhaya	C	1	7	15		2			1	2	8	5	1		2		
	D	1	6	12		2			1	1	6	6	1		2		
Bangkok	C	5	4	5	8	4	2	4	9	8	2	3	11	14	12		3
	D	1	1	3	7	1		4	3	1	2		18	8	8		1
Chaxoengsao	C												1		3		
	D												1		3		
Dhannapuri	C	3					2	4	2	3	9	2	2				
	D	3					1	4	1	2	7		2				
Lobpuri	C										26	27	21				
	D										23	18	20				
Nondpuri	C							1		4							
	D							1		2							
Pradhumdham	C															1	
	D															1	
Singhapuri	C											17	2		3		
	D											12	2		4		

Smud Prakar	C						23	14	19	6	3	2	6		2			
	D						15	13	4	5	1		5		2			
Smud Sagara	C			27	16	12	3	3										
	D			12	6	6	1	3										
On vessel: S. S. Glenapp, at Yokohama, from Shanghai	C	P																

Place		August, 1928	September, 1928	October, 1928			November, 1928			December, 1928			January, 1929		
				1-10	11-20	21-31	1-10	11-20	21-30	1-10	11-20	21-31	1-10	11-20	21-31
Indo-China (French) (see also table above):															
Annan	C	11	4	4	5	2			5						
Cambodia	C	38	16	6	19			4	17		21	4	26	25	28
Cochin-China	C	28	28	6	26	20	27	48	81		351	346	232	202	226
Tonkin	C	2													
Kwangchow-Wan	C	1						1							

PLAGUE

Place		Aug. 26–Sept. 22, 1928	Sept. 23–Oct. 20, 1928	Oct. 21–Nov. 17, 1928	Week ended—												
					Nov. 24, 1928	December, 1928					January, 1929				February, 1929			
						1	8	15	22	29	5	12	19	26	2	9	16	23
Algeria:																		
Algiers	C			2														
Oran	C		1	2														
Philippeville	C		2															
Argentina: [1]																		
Buenos Aires [2]																		
Catamarca Province: Recreo	C			P			9											
Cordoba Province—																		
Canada Honda	C			14														
Laborde	C										1							
Jujuy Province: Perico	C										1					3		
Rosario	C								1		1					1		
Santiago del Estero	C			7														
Tucuman Province: El Mollar	C						5											
Azores: St. Michaels Island	C	2	3	3														
	D			1														

[1] During the period from Nov. 10 to Dec. 11, 1928, 13 cases of plague were reported at El Mollar, Tucuman Province, Argentina. During the same period 1 case of plague was reported at Chipion and 1 at Ucacha, both in Cordoba Province, Argentina.

[2] 18 plague-infected rats were reported at Buenos Aires, Argentina, from July 1 to Dec. 31, 1928.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

PLAGUE—Continued

[C indicates cases; D, deaths; P, present]

Place		Aug. 26–Sept. 22, 1928	Sept. 23–Oct. 20, 1928	Oct. 21–Nov. 17, 1928	Week ended— Nov. 24, 1928	December, 1928					January, 1929				February, 1929			
						1	8	15	22	29	5	12	19	26	2	9	16	23
Belgian Congo:																		
Djugu	C			2														
Lenza	C			1	1					1								
Brazil: Santos	C				2													
British East Africa (see also table below):																		
Mombasa	C	1	3															
	D	1	3															
Plague-infected rats			2															
Tanganyika	C	8																
	D	8																
Uganda	C	102	106	114	33		51	40	36									
	D	64	86	103	33		50	38	35									
Canary Islands:																		
Las Palmas	C	2	2															
	D	1	1															
Teneriffe	C	5	2				1											
	D	3																
Laguna	C		4													1		
Ceylon:																		
Colombo	C	3	2	1		1	1	2	2	1	2	3		1	2			
	D	3	1	1		1	1	2	2	1	2	3		2	1			
Plague-infected rats			1		3		2											
Jaffna	C		2	1														
	D		2															
China:																		
Hainan	C																P	
Mongolia—																		
Chien Chia Tien	C	P	P															
Tungliao	C	220	173	19														
Urga	C	P																
Shansi—Fengchow	C		P															
Suyuan Province	C															P		

Dutch East Indies:																			
Celebes—Makassar	C		1																
	D		1										1						
Plague-infected rats			4	2															
Java—																			
Batavia and West Java	C	49	29	23	13	10	10	10	9	18	13					1			
	D	49	29	22	13	10	9	10	9	18	12								
Plague-infected rats							1												
East Java and Madura	C	1	16																
	D	1	16																
Surabaya Residency	C		1	2			1												
	D		1	2															
Ecuador (see table below).																			
Egypt:																			
Alexandria	C	2													2				
	D	1													1				
Amrieh District	C	11	1																
	D	5	1																
Assiout Province	C	1	1	3															
	D	1	1	3															
Beheira Province	C	5	1																
	D	2	1																
Beni-Suef	C	16				4				4	2	3	1	2					
	D	5				1				1	1			3					
Dierout	C			1															
	D			1															
Girga	C	5			1														
	D	4			1														
Kena Province	C				3	1													
	D				2	1													
Menoufieh Province	C			7															
Tanta	C			5															
Greece (see also table below):																			
Athens and Piræus	C	2	5	5															
Corfu	C	1			1														
Patras	C	1																	
Hawaii Territory—Hawaii:																			
Hamakua District—																			
Honokaa	D	2																	
Plague-infected rats		4																	
India	C	3,354	6,209	8,710	1,930	1,953	1,816	2,068											
	D	1,573	3,225	4,428	1,067	1,208	1,205	1,383											
Bassein	D	1		2								1	1		3				
Bombay	C	7	4	5		4							1						
	D	6	5	2		5		1					1		2				
Plague-infected rats		20	13	7	10	10	8	4	7	5	14	9	11	10	11				
Calcutta	D	1																	
Cochin	D										10								
Madras Presidency	C	317	196	539	211	149	197	129	136	111	152								
	D	147	97	235	71	69	109	59	69	41	73								
Rangoon	C	17	7	2				1											
	D	15	5	3			1		1				1	1	2				
Plague-infected rats		2		4															

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

PLAGUE—Continued

[C indicates cases; D, deaths; P, present]

Place		Aug. 26–Sept. 22, 1928	Sept. 23–Oct. 20, 1928	Oct. 21–Nov. 17, 1928	Week ended— Nov. 24, 1928	December, 1928					January, 1929				February, 1929			
						1	8	15	22	29	5	12	19	26	2	9	16	23
Indo-China (see also table below):																		
Pnompenh	C	6	1	1	----	2	1	1	----	2	2	4	2	4	1	----	----	----
	D	4	1	1	----	2	1	1	----	1	2	3	2	4	1	----	----	----
Saigon	C	----	----	1	----	----	----	----	----	----	----	----	----	----	----	----	----	1
	D	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	5	----
Tourane	C	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	1
Iraq:																		
Baghdad	C	4	----	9	3	2	4	1	1	2	5	1	2	1	3	----	----	----
	D	2	----	5	2	1	2	----	1	2	5	----	----	1	2	----	----	----
Plague-infected rats		----	----	----	----	----	----	----	----	----	----	----	2	----	1	5	----	6
Naudham	C	----	----	----	----	----	----	----	----	1	----	----	1	----	----	----	----	----
	D	----	----	----	----	----	----	----	----	----	----	----	----	----	----	1	----	----
Plague-infected rats		----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Madagascar (see also table below):																		
Tamatave	C	9	13	7	----	----	----	----	2	----	----	----	1	----	----	----	----	----
	D	4	10	3	1	----	----	----	----	----	----	----	----	----	----	----	----	----
Nigeria:																		
Lagos	C	60	88	83	15	9	11	8	5	4	2	1	1	4	2	----	----	----
	D	59	88	77	14	9	10	8	5	3	2	1	1	3	1	----	----	----
Plague-infected rats		62	91	145	----	30	----	----	----	13	15	----	----	----	----	----	----	----
Paraguay: Asuncion	C	----	3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Peru (see table below).																		
Senegal (see table below).																		
Siam	C	----	----	1	----	----	----	9	----	----	----	4	----	----	----	1	----	----
	D	----	----	1	----	----	----	8	----	----	----	3	----	----	----	1	----	1
Bangkok	C	----	----	1	----	----	----	----	----	----	2	2	1	----	----	----	----	----
	D	----	----	1	----	----	----	----	----	----	1	----	1	----	----	----	----	----
Panknampo	C	----	----	----	----	----	----	8	----	----	----	----	----	----	----	----	----	----
	D	----	----	----	----	----	----	7	----	----	----	----	----	----	----	----	----	----
Straits Settlements:																		
Ipoh	C	2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	D	2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Penang	C	----	1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	1
Singapore	C	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	1
	D	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Syria (see table below).																		
Turkey:																		
Adalia	C	----	1	1	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Constantinople	C	----	1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Place		August, 1928	September, 1928	October, 1928	November, 1928	December, 1928	January, 1929
Adana	C					P	
Constantinople	C					P	
Union of South Africa:							
Cape Province	C			1	2	1	
Orange Free State	C				P		
Transvaal	C						
Union of Socialist Soviet Republics:							
Astrakan—							
Kirghiz District	D	54					
Krasnoiarsk District	D	1					
Chita District	C	1					
Kalmouks District	C				10		
	D				7		
Kasacks	C				7		
Ural Government	C				7		
	D				7		
Uruguay: Rivera	C						
On vessel:							
S. S. Automedon, at Penang, Straits Settlements	C		P				
S. S. Halydan, at Bangkok, from Singapore	C						
S. S. Sjomand, at Alexandria, from Batoum	C						

Place		August, 1928	September, 1928	October, 1928	November, 1928	December, 1928	January, 1929
British East Africa (see also table above):							
Kenya	C	144	15	37	16	15	
	D	34			2		
Uganda	C	52	128	134			
	D	141	98	108			
Ecuador: Guayaquil	C		3	3	21	20	
	D			2	8	7	
Plague-infected rats			27	21	29	75	
Greece (see also table above)	C				1	2	3
	D				1	1	1
Indo-China (see also table above)	C	2	6	2			11
Madagascar (see also table above)	C	65	59	88		157	
	D	61	51	84			
Ambositra Province	C	3		8	14		
	D	3		8	14		
Antisirabe Province	C		10	2	6		
	D		10	2	6		
Itasy Province	C		2	5	6		
	D		2	5	6		
Majunga	C	2					
	D	2					
Moramanga Province	C	11	20	38	32		
	D	10	18	35	32		

Place		August, 1928	September, 1928	October, 1928	November, 1928	December, 1928	January, 1929
Madagascar—Continued.							
Tamatave	C	12	18	9	2		
	D	7	10	7	2		
Tananarive Province	C	51	75	100	159		
	D	51	62	95	141		
Peru	C	4	3	10	18	26	
	D	1	1	4	6	6	
Senegal	C	43	190				
	D	32	127				
Baol [1]	C	68	73	39	18	4	
	D	38	40	14	6	2	
Cayor [1]	C	46	20	17		14	
	D	15	8	6		10	
Fatick [1]	C			35			
	D			20			
Louga [1]	C			14	2		
	D			5	1		
Rufisque [1]	C	2	1	49	8		
	D		1	14	4		
Thies [1]	C	151	106	51	11		
	D	119	78	29			
Tivaouane [1]	C	9					
Syria: Beirut	C			1	3		

[1] Reports incomplete.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

SMALLPOX

[C indicates cases; D, deaths; P, present]

Place		Aug. 26–Sept. 22, 1928	Sept. 23–Oct. 20, 1928	Oct. 21–Nov. 17, 1928	Week ended— Nov. 24, 1928	December, 1928					January, 1929				February, 1929			
						1	8	15	22	29	5	12	19	26	2	9	16	23
Algeria:																		
Algiers	C	2	4	2		1												
Oran	C		21				7					1	1	1				
Arabia: Aden	C	1		1	1													
Brazil (see table below).																		
British East Africa (see also table below), Kenya—Mombasa	C		1						3									
British South Africa:																		
Northern Rhodesia	C	382	195	342				67	173									
	D	22	7	14				8	23									
Southern Rhodesia	C	5	9	1		2		3										
Tanganyiki	C			1														
Canada:																		
Alberta	C	6	4	4	7	1	13		1		1	1	3					
Edmonton	C								1	11	1	1	2					
British Columbia—Vancouver	C	5	16	21	5	4	8	8	13	9	17	12	24	16	16	10	17	
Manitoba	C		1	14	16	5	1	7	16	2	1	4	3		12	6		
Winnipeg and vicinity	C				13	2	1	1		1	1							
Nova Scotia	C											5	1		1			
Ontario	C	3	15	12	4	4	2	5	4	1	14	17	7	4	25	47		
Kingston	C	1		1														
North Bay	C							1										
Ottawa	C	6	2	6	1			1										
Sarnia	C			1											1			
Toronto	C														2			
Prince Edward Island	C														5	5		
Quebec	C	28	75	118	25	72	20	8	10	8	7	12	9	5	5	1	3	
Montreal	C	12	4	10		1	1	1	2	1	2	3	5	2	2	2		
Quebec	C	13	12	12	3	1	1	1				4	4	2		2		
Saskatchewan	C	3	1	10	11	12	11	18	1	6	7		3	2		17		
Moose Jaw	C	2		2	1						1		2	4				
Regina	C	1			2										3	1		
Saskatoon	C																	

China:																		
Amoy	C	P	P	P			1	1	2	1	1	1						
Canton	C				1		4	9	7			11	14	21	36			
	D											2	1					
Chefoo	C	P		P	P													
Foochow	C	P	P	P	P	P	P	P			P							
Hong Kong	C	9	13	66	17	33	61	91	81	73	80	85	91	78	58	80		
	D	7	8	21	8	25	16	29	22	38	48	44	83	77	67	61		
Manchuria—																		
Changshun	C														3			
Fushun	C	1		1									1		1			
Harbin	C	1	1	7	1	2		1										
Kwantung—Dairen	C	2	1	2		2	2	1										
	D		1															
Mukden	C	2	1								1							
Shanghai—																		
Foreigners only	C	2	3	9	4	1		1	5	9	5	4	8	2				
Including natives	D		6	20	6	11	6	9	14	12	14	24	15	11	18			
Tientsin	C	1	4	6	2						4	2						
Colombia: Cartagena	D				2													
Dutch East Indies:																		
Belawan Deli	C	10	9	5	2		1	3		2	3	2	5	11	2			
	D	2	3	2	1			1			3		1	4				
Borneo—																		
Pontianak	C	4	2	1														
	D		1															
Samarinda	C		3	16	15	3	1	8	8	3								
	D			2	3	1			2		1							
Celebes—Makassar	C				1													
	D				1													
Java—																		
Batavia and West Java	C	1	6	2			1											
	D		2															
East Java and Madura	C	5	5	1														
	D	6		1														
Surabaya	C	4	2	1			1	1										
Sumatra—Medan	C	7	14	4	2		1		3	1	3	2						
	D		4	2	1				1	1	3							
Ecuador (see table below).																		
Egypt: Suez	C						1											
France (see table below).																		
Great Britain:																		
England and Wales	C	430	514	581	199	189	155	176	201	131	188	213	171	239	250			
Birmingham	C	1																
Bradford	C	1	1				1									1		
Bristol	C												1					
Cardiff	C					1												
Castleford	C	5	8	6		4	1	3	3	2	4	7	4	14	16	14		
Hull	C	13	7	3	1										2			
Leeds	C	6		1			1	1	1					1	1	1		
Liverpool	C												1					
London	C	8	12	21	5	4	4	1	6	10	14	6	6	13	17	4		

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

SMALLPOX—Continued

[C indicates cases; D, deaths; P, present]

Place		Aug. 26–Sept. 22, 1928	Sept. 23–Oct. 20, 1928	Oct. 21–Nov. 17, 1928	Week ended— Nov. 24, 1928	December, 1928 1	8	15	22	29	January, 1929 5	12	19	26	February, 1929 2	9	16	23
Great Britain—Continued.																		
England and Wales—Continued.																		
Manchester	C	3	1															
Newcastle-on-Tyne	C		1	1	2			1							1	5		
Nottingham	C	15	5	1		2		1	3							1		
Plymouth	C	3	2	6														
Sheffield	C	4																
Stoke-on-Trent	C			9	2	2	1	6	1	1	1	1	2	8	2	2		
Scotland—																		
Arbroath	C	3																
Dundee	C	1	3	2			1											
Greece (see table below).																		
Hedjaz	C										22	26	55	21	22			
	D										9	6	20	7	9			
India	C	4,553	2,792	3,041	995	1,644	1,487	1,776										
	D	1,116	696	836	291	475	373	463										
Bombay	C	14	24	9	1	2	2	6		3	10	21	34	42	44			
	D	11	12	4			2	2		1	6	14	13	17	25			
Calcutta	C	13	7	2	3	2	4	4	6			4	8	4	7			
	D	17	4	2	2	1	2	2	2	1		3	5	1	3			
Karachi	C		1								2	4		10	1			
	D													1				
Madras	C	90	77	71	16	18	15	9	8	5	36	45	50	82	37			
	D	21	23	22	4	6	6		2	1	4	18	6	11	12			
Moulmein	C	4	2		2	2		1				3	2	2	2			
	D	1				1					1			1	1			
Negapatam	C	46	51	38	5	16	7	5		4	3	1	3	14	2			
	D	10	11	8		2	1	2						1				
Rangoon	C			1				1			1			4	1			
	D														1			
Tuticorin	C		3										1		1			
Vizagapatam	C	14	1									2	2					
	D	3																

India (French):
Chanderpanagar

India (French):																			
Chandernagor	C	9	4	3															
	D	2	4	3															
Pondicherry Province	C	92	111	84	18	13	17		24	19	11	21	22	13					
	D	87	73	67	16	13	17		20	18	10	14	20	13					
Indo-China (see also table below):																			
Pnompenh	C	19	28	30	5	8	23	8	13	10	6	9	11	6	38				
	D	15	10	5	4	4	9	3	8	6	1	6	8	3	17				
Saigon	C	1	3	2						2	1	9	2		1				
	D			2								6			1				
Iraq:																			
Baghdad	C	34	38	40	14	9	17	6	5	6	7	2	13	1	1	2	4	2	
	D	17	12	23	9	18	13	5	10	1	6	12	2	1			4	1	
Basra	C	1	23	35	13	12	5	5	3	3	5		5	4	1	8	4	2	
	D	1	9	33	11	8	4	3	2	2	3		4	3	1	2	3	1	
Hillah Liwa	C										34	20	20						
	D										5	9	9						
Kirkuk Liwa	C				76		64	33			86							9	
	D				19		12	7			17							9	
Mossoul	C			53	44	74	146	30	6	13	30	6	2		23	5		14	
	D			23	19	42	42	7	12	14	5	8	4		12	1		2	
Sinjar	C										45	8	61						
	D										1	4	15						
Italy: Palermo	C			2	1	2			1	2									
Ivory Coast (see table below).																			
Jamaica (outside Kingston) (alastrim)	C	3	2									1							
Kingston (alastrim)	C					1													
Japan: Nagasaki	C												1						
	D												1	1					
Malta: Valetta	C		1																
Mexico (see also table below):																			
Aguascalientes	D							2			1		1	1	1				
Chihuahua	D												1						
Jalisco (State)	C		11																
Guadalajara	D	3	1		1		1	2		1				2	2	4	4		
Juarez	D		1						2	3				1					
Mexico City and surrounding territory	C	1	1	5					1		1	5	2						
	D	1																	
Saltillo	D			1															
San Luis Potosi	D	1	2	1															
Tampico	C			1															
Torreon	D		1																
Morocco (see table below).																			
Nigeria: Lagos	C			1															
Poland	C		1	1		2		1	1										
	D			1															
Portugal (see also table below):																			
Lisbon	C								2				2		2				
Senegal (see table below).																			
Siam	C	1	3	1	5		3												
Bangkok	C				1														
Straits Settlements: Singapore	C	1	2								1			2	1				

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

SMALLPOX—Continued

[C indicates cases; D, deaths; P, present]

Place		Aug. 26–Sept. 22, 1928	Sept. 23–Oct. 20, 1928	Oct. 21–Nov. 17, 1928	Week ended— Nov. 24, 1928	December, 1928					January, 1929				February, 1929			
						1	8	15	22	29	5	12	19	26	2	9	16	23
Sudan (Anglo-Egyptian)	C	152	89	79	58	14	148	------	192	157	129	13	190	17	58	------	49	71
	D	34	19	13	7	13	9	13	12	43	1	1	24	5	5	------	13	14
Sudan (French) (see table below).																		
Sweden: Stockholm	C	------	------	------	------	------	1	------	------	------	------	------	------	------	------	------	------	------
Switzerland: Lucerne Canton	C	------	1	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Syria (see table below).																		
Tunisia: Tunis	C	1	------	1	------	1	------	1	13	------	1	------	------	------	------	------	------	------
Union of South Africa:																		
Cape Province	C	P	P	P	P	------	------	------	------	------	------	------	------	------	------	------	------	------
Natal	C	------	------	------	------	------	------	------	------	1	------	------	------	------	------	------	------	------
	D	------	------	------	------	------	------	------	------	1	------	------	------	------	------	------	------	------
Orange Free State	C	------	P	P	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Transvaal	C	P	P	P	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Upper Volta	C	P	10	5	------	------	------	------	------	------	------	------	------	------	------	------	------	------
On vessel: S. S. Ballarat, en route to Cape Town, South Africa	C	------	------	1	------	------	------	------	------	------	------	------	------	------	------	------	------	------

Place		September, 1928	October, 1928			November, 1928			December, 1928			January, 1929		
			1–10	11–20	21–31	1–10	11–20	21–30	1–10	11–20	21–31	1–10	11–20	21–31
Indo-China (see also table above)	C	73	38	19	43	55	57	32	23	100	120	74	130	107
Ivory Coast	C	2	------	1	------	------	------	------	------	------	------	------	------	------
Senegal	C	4	2	------	------	------	------	------	------	------	------	------	------	------
Sudan (French)	C	P	P	32	------	------	------	------	2	------	P	------	------	------
	D	------	------	2	------	------	------	------	------	------	------	------	------	------
Syria: Beirut	C	------	------	1	------	1	------	1	------	------	1	------	1	------

Place		August, 1928	September, 1928	October, 1928	November, 1928	December, 1928	January, 1929
Brazil: Porto Alegre	C	2	1	12	3	------	------
British East Africa (see also table above):							
Kenya	C	------	------	36	37	31	------
Zanzibar	C	------	------	2	------	------	------
	D	------	------	1	------	------	------
Ecuador: Guayaquil	C	38	22	6	6	13	------
	D	------	1	3	1	1	------
France	C	6	3	3	------	18	------
Greece	C	3	6	6	6	6	8
	D	------	------	1	------	1	1
Mexico (see also table above)	D	388	------	------	------	------	------
Morocco	C	1	4	5	2	------	------
Portugal (see also table above)	C	------	24	27	------	------	------
	D	------	2	3	------	------	------

TYPHUS FEVER

Place		Aug. 26–Sept. 22, 1928	Sept. 23–Oct. 20, 1928	Oct. 21–Nov. 17, 1928	Week ended— Nov. 24, 1928	December, 1928: 1	8	15	22	29	January, 1929: 5	12	19	26	February, 1929: 2	9	16	23
Algeria:																		
Algiers	C	2	1	4	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Oran	C	2	1	2	------	------	------	------	------	------	------	------	P	------	------	------	------	------
Bulgaria	C	6	8	4	1	4	4	------	------	------	4	1	3	4	------	------	------	------
	D	------	------	1	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Sofia	C	3	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Chile: Valparaiso	C	------	------	------	1	------	------	------	------	------	------	------	------	------	------	------	------	------
	D	------	------	------	1	------	------	------	------	------	------	------	------	------	------	------	------	------
China:																		
Hong Kong	C	------	------	------	------	------	------	------	------	------	------	------	1	------	------	------	------	------
Manchuria—																		
Harbin	C	------	------	------	------	2	------	------	------	------	------	------	------	------	------	------	------	------
Kwantung	C	3	2	1	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Chosen (see table below).																		
Egypt:																		
Alexandria	C	2	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
	D	1	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Assiout Province	C	------	1	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Beheira Province	C	------	2	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
	D	------	1	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Cairo	C	1	1	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
	D	1	1	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

TYPHUS FEVER—Continued

[C indicates cases; D, deaths; P, present]

Place		Aug. 26–Sept. 22, 1928	Sept. 23–Oct. 20, 1928	Oct. 21–Nov. 17, 1928	Week ended— Nov. 24, 1928	December, 1928					January, 1929				February, 1929			
						1	8	15	22	29	5	12	19	26	2	9	16	23
Egypt—Continued.																		
Daqalhiya Province	C							15	4	3	3	1						
	D							1				2						
Menoufieh Province	C		1															
	D		1															
Port Said	C	1	1	1														
Suez	C	6	4															
Greece (see table below).																		
Ireland:																		
Irish Free State—																		
Clare County—Scariff	C			1														
Dublin	C	5												1				
	D														1			
Kerry County: Tralee	C	1	7															
Japan: Miyagi	C		2															
Lithuania (see table below).																		
Mexico (see also table below):																		
Aguascalientes	D				1	1												
Chihuahua	D									1								
Mexico City, including municipalities in Federal District	C	15	9	15	3	3	2	4	3	2	1	3	3	4				
	D	1	1	2			1				1	1						
San Luis Potosi	D								1									
Morocco	C	3	1	1	4		4	8				4	1	7	7			
Palestine	C	10	11	6	4	4	3	1	1		1			2		1		2
Poland	C	65	31	81	15	17	32	53	47	73	38	45	33					
	D		4	10	3	1	2	5	2	5	4	5	5					
Portugal: Oporto	C	1						1										
Rumania	C	12	11	17	7		15	20	21	49	38	59						
	D	3						1		2	3	6						
Tunisia	C	7		4	4	2									2			
Menzel	C		1	1														
Sfax	C		11															

Turkey (see table below).																			
Union of South Africa:																			
Cape Province	C	P	P	P	P	P		P	P	P	P	P							
East London	C		1																
	D			1															
Natal	C	1	P	P	P	P	P	P	P	1	1	P							
Orange Free State	C		P	P	P	P	P		P	P	P	P	P						
Transvaal	C												P		1				
Yugoslavia (see table below).																			

Place		August, 1928	September, 1928	October, 1928	November, 1928	December, 1928	January, 1929
Chosen	C	41	36				
	D	6	2				
Chemulpo	C			1	1		
Seoul	C	1	2	3		3	
	D		1				
Greece: Athens	C		1	1	4	1	
Lithuania	C	15	1		4	11	32
	D	2					3

Place		August, 1928	September, 1928	October, 1928	November, 1928	December, 1928	January, 1929
Mexico: Sonora (see also table above)	D						1
Peru	C				3		
Turkey	C	4	6	4		19	1
	D	2		1		3	
Yugoslavia	C		6	1	17	7	
	D				1		

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

YELLOW FEVER

[C indicates cases; D, deaths; P, present]

Place		Aug. 26–Sept. 22, 1928	Sept. 23–Oct. 20, 1928	Week ended—											
				Oct. 27, 1928	November, 1928				December, 1928					January, 1929	
					3	10	17	24	1	8	15	22	29	5	12
Brazil:															
Bahia	C	1		1											
	D	2												1	
Para	D														2
Rio de Janeiro [1]	C	9	6	1	1					2					
	D	8	4	1											
Dahomey: Ouidah Military Camp	C						1		1						
	D						1								
Gambia: Bathurst	C				2		2	2		1					
	D					1		1		1					
On vessel:															
S. S. Berini, at Santos, Brazil	C		4												
	D		1												
S. S. Victoria, at Manaos from Para, Brazil	C														1
	D														1

[1] 29 cases of yellow fever with 14 deaths were reported at Rio de Janeiro during January, 1929, mostly suburban.